DOCUMENT RESUME

ED 320 511 HE 023 605

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TITLE	Disability Needs Assessment of SUNY Campuses.
INSTITUTION	State Univ. of New York, Albany.
SPONS AGENCY	United Univ. Professions, Albany, NY.
PUB DATE	Dec 89
NOTE	97p.
PUB TYPE	Reports - Research/Technical (143) -- Tests/Evaluation Instruments (160)
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	*College Faculty; *Disabilities; Faculty College Relationship; Faculty Recruitment; Financial Support; Higher Education; *Needs Assessment; *Physical Disabilities; Place of Residence; Surveys; Work Environment
IDENTIFIERS	*State University of New York

ABSTRACT

State University of New York (SUNY) faculty, professionals, and librarians who have disabilities were surveyed to determine whether a fund should be established to facilitate the hiring of, and provision of accommodations for, people with disabilities in the SUNY system. The researchers interviewed 25 employees with disabilities at 7 representative campuses in addition to mailing questionnaires to the 504 coordinators of the SUNY campuses represented by the United University Professions. There were estimated to be fewer SUNY employees with disabilities than might have been expected. There was a wide range of types and severity of disability and these variations have led to concomitant variations in needs and accommodations. A need for information about the rights of people with disabilities, about adaptive technology, and about campus-provided services was found, as well as a need for an institutional commitment to the improvement of conditions for currently employed people with disabilities and to the hiring of more such people. The report concludes with recommendations for a matching fund to be monitored over a 3-year period, publicity for the fund, and a top-down commitment of New York State and the UUP to disability issues. The study instrument is appended. Contains 41 references. (GLR)

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Disability Needs Assessment of SUNY Campuses

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Funded by:
New York State/ United University Professions
Joint Labor Management Affirmative Action Committee

The University at Albany
State University of New York
Albany, New York
December, 1989

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Disability Needs Assessment Project
Abstract

This document reports the results of a needs assessment survey of State University of New York (SUNY) faculty, professionals and librarians who have disabilities. The survey was sponsored and paid for by a grant from the New York State/ United University Professions (NYS/UUP), Joint Labor Management Committee, Affirmative Action Committee. The purpose of the study was to help determine whether a fund should be established to facilitate the hiring of (and provision of accomodations for) people with disabilities in the SUNY system.

The report begins with a literature review highlighting the major issues in hiring people with disabilities. It describes the current context, including the role of technology, the changes in legal requirements and sociological changes. It points out solid positive reasons for hiring persons with disabilities, as well as the barriers which have led to their underemployment and unemployment.

The results of the survey are based on interviews with 25 employees with disabilities at seven representative campuses and questionnaires mailed to the 504 coordinators of the SUNY campuses represented by UUP. Estimates are that there are fewer SUNY employees with disabilities than might have been expected. There is a wide range of types and severity of disability and this variation leads to concomitant variation in needs and accomodations. Many accomodations have been accomplished at very minimal cost, but many physical and sociopsychological barriers remain. There is a need for information about the rights of people with disabilities, about adaptive technology, and about campus-provided services. There is a need for an institutional commitment to the improvement of conditions for currently employed people with disabilities and to the hiring of more such people.

The report concludes with recommendations for: a matching fund to be monitored over a three-year period; publicity for the fund; and a top-down commitment of New York State and the UUP to disability issues.

Disability Needs Assessment Project
Executive Summary

This document reports the results of a needs assessment survey of a sample of State University of New York (SUNY) faculty, professionals and librarians with disabilities and 504 coordinators. One objective was to provide New York State (NYS) and the United University Professions (UUP) with information to help decide whether or not to establish a fund to facilitate the hiring of people with disabilities by the State University of New York (SUNY) system. If so, what should the nature and type of fund be? It was thought that a needs assessment of people already at SUNY could help us draw inferences about the nature and extent of such a fund.

The first sections of this report are a literature review highlighting some of the major issues in hiring people with disabilities. The first general point that this literature makes is that the context is changing. Where once the responsibility for providing any needed accomodations rested solely with an employee with a disability, now employers share in the responsibility. Sociological changes, the civil rights and women's movements of the 1960's and 70's and the 1973 rehabilitation act which ensured that reasonable accomodations be made when hiring an employee with a disability have all contributed to these changes. While the term 'reasonable accomodations' does not mean that unreasonable demands be met, it does impose extra costs on employers, and it is these costs that a potential NYS/UUP fund could help defray. Additionally, technology is more and more enabling people with disabilities to obtain jobs, increasing the need for appropriate funding sources for the, sometimes costly, technology.

In addition to the changing context increasing the role of institutions in promoting diversity, our literature review highlights several things. First, there are positive points to be made, and this is important to say in an area where negatives are often stressed. As will be shown in the report, there are many solid positive reasons to hire people with disabilities: economic benefits, the value of diversity, and histories of solid work records. A second positive feature here involves costs and benefits. The 1973 rehabilitation act led to a mandated interest in modifications and to the architectural features we have recently become used to: ramps, curb cuts, etc. The literature demonstrates that many modifications are less costly than we think; many involve the application of common sense or minor cost outlays. Others are of a general benefit character so that once in place, they open up the possibilities for future generations. In some respects, the road to hiring people with disabilities is easier than we thought.

There are negatives in the story, highlighting the need for continued and increased interest in disability issues. Too many people with disabilities are very seriously underemployed. Economic discrimination is a fact of life for those who are unemployed. Even after architectural barriers have been diminished, a host of sociopsychological issues remain.

With this background in mind, our study is a needs assessment for persons with disabilities at SUNY. We interviewed 25 individual employees with disabilities at 7 representative campuses. (The study was originally planned as a pilot, explaining the relatively small sample of 25, but it will be clear from the report, we are not recommending a larger scale study.) These interviews were intended to give an in-depth picture of the needs, work situations and accomodations of these people. These were followed up by questionnaires sent to the 504 coordinators of the SUNY campuses which are part of the 08 bargaining unit and represented by UUP. We felt the coordinators could give us a wider view of the system and provide more general estimates of SUNYwide information.

Findings

As the length of this report indicates, we have many findings. Much was learned from this set of people. Studies in this field are scarce, so even a small scale study becomes important. Below we highlight some of the findings which bear most directly on the recommendations.

1. There are fewer employees with disabilities across SUNY than we might expect. Our best estimates indicate less than 400 across 22 campuses and very low concentration on most campuses. For self-interest (lest we lose their talent) and equity, this means that much needs to be done to increase their numbers and to establish a much more institutionalized set of procedures for dealing with these people's needs. As one of the few centralizing forces in the SUNY system, the UUP is in a good position to provide some of this institutional framework.

2. In every respect, our findings stress variation, arguing strongly against the institution of any stereotypic policy solutions. Though mobility disabilities are the most common, a wide range of types and severity of disability is represented in this study. Within a given disability, there are large ranges of variation of severity, accomodations needed, and styles of coping. Many people become disabled later in life after having obtained their jobs, and they face different constraints than those whose disability

occurred earlier. All these variations in disability lead to concomitant variations in needs and accomodations.

3. Our sample overrepresented older people and people whose disabilities were less severe. Again, this points up the need for more active recruiting.

4. In keeping with the literature discussed above, we have many positive findings. If this set of people is typical, people with disabilities make good employees. These people had very stable employment records, were well-educated and good community citizens and were extremely creative in the types of adaptations they had made. They are the type of employees that presumably SUNY would like to have.

Similarly, many accomodations were easier to devise than we thought. We see the dramatic impact that the 1973 Rehabilitation Act had on architectural accomodations. We see the general benefit character of many of these and the low cost nature of others. We see also that the needs of many employees are minimal. Just because someone has a disability doesn't mean they will be making enormous demands, or that their productivity will not outweigh the cost of the demands.

5. Despite the spate of architectural modifications, these respondents highlighted the need for further improvement. Parking was a hard issue on all the campuses. Parts of most campuses were less accessible or not accessible, and maintenance is an ongoing concern.

6. Sociopsychological issues are still barriers as respondents reported misunderstandings and prejudice on the part of their colleagues, a need for more role models and interaction among people with disabilities, and a few cases of outright discrimination.

7. There are numerous gaps between an objective situation and respondent perceptions. Respondents had only general ideas about the provisions of the landmark 1973 Rehabilitation Act and section 504. They were similarly underinformed about technology and about campus-provided services. While some of these gaps are not surprising and may be explained by the nature of our sample, they do

highlight the need for easier and better access to information, a role that the centrally located New York State and UUP have the potential to fill.

8. Many of the accomodations that have been made for this set of employees have been made under a non-institutional framework, where long-term employees built up personal connections over time. There is a need to change this, particularly felt by employees who became disabled after being hired and who had a great need for help in handling the unexpected situation. Others described the need for a top-down institutional commitment to better deal with their own situations, make it easier to deal with the prejudices of colleagues without disabilities and to improve the overall working environment.

9. In general, there is considerable agreement among campus employees with disabilities and employees and 504 coordinators on the services and accomodations provided by a campus. Employees express greater amounts of ignorance, but when they do have ideas, those ideas are in accord with administrators.

Recommendations

Our recommendations argue that New York State and the UUP should be playing a greater role in facilitating the hiring of people with disabilities by the SUNY system. Such a role would make the NYS/UUP programs a model for other organizations.

Our recommendations fall into several categories, dealing with funding, publicity and informational issues. A brief summary of them follows:

1. We recommend that a fund of $60,000 over the three-year contract period be allocated for the purposes of facilitating the hiring of more people with disabilities and helping current employees upgrade their accomodations. This fund should be implemented with matching funds from individual departments and campuses as indicated in the report. There should be a good deal of leeway in the scope and type of projects to receive funding as well as the maximum amount provided for an individual request.

2. Publicity is vital to the success of this effort. Ongoing articles in The Voice, The SUNY News, public recognition to exemplary campuses and active outreach and recruiting are essential. It cannot be said too strongly

that a fund without publicity will not work. Employers must be made aware of the existence of help before they too quickly reject otherwise qualified job applicants.

3. A top-down commitment of New York State and the UUP to disability issues would go a long way toward satisfying respondent needs for institutional commitments and would set a model for other institutions. Specific evidence of general commitment would include: a specifically designated person to deal with disability issues; the hiring of individuals with disabilities; the provision of information to employees about section 504 of the rehabilitation act; and the encouragment of more cross-campus networking and conferencing would all be specific evidences of this general commitment.

Disability Needs Assessment Project

Part I: Introduction

Over the last few decades, we have seen an increase in awareness given to issues of social diversity. The civil rights and women's movements have contributed to a changing institutional and legal climate and to changing attitudes on the part of the general public. While change has been slower in the area of disability issues, there has still been much recent legal and social progress. Where 100 years ago, people with disabilities may have been institutionalized or neglected, we have moved to serious consideration of what accomodations are needed to adequately integrate people with disabilities into the work force.

This report will highlight two themes. The first is the progress that has been made over the past decades, progress made especially valuable when we look at the contributions that employees with disabilities can and have made in their places of work. Legal and attitudinal changes have occurred. Enormous technological advancement in the last decade has opened up new employment possibilities. or people with disabilities as well as for the general population.

While one theme of this document is progress, the other is that improvement is still needed. It is difficult to estimate the percentage of the total population with disabilities who participate in full time employment. Many are underemployed. There are clear instances of workplace discrimination. People with disabilities are not always understood, so they face stereotypes, indifference and sometimes cruelty. Attitudes are changing, but more must be accomplished. Some accomodations do need to be made e.g., architectural and technological, and these accomodations have costs that cannot be ignored, though some may be less than had been anticipated. And people with disabilities are often unaware of employment options open to them or of their rights under the law, so there is work involved in matching employee and employer goals.

The Rehabilitation Act of 1973 and subsequent legislation established employer obligations to provide "reasonable accomodations." Specifically, Section 504 prohibits discrimination on the basis of handicap in any program or activity receiving federal financial assistance and recipients are required to document their compliance. The prohibition of discrimination applies both to the population served by the program or activity and to those employed. (Collignon, 1986). As recipients of federal funds, the campuses of the State University of New York (SUNY) are subject to this legislation and each has appointed a "504

Coordinator" to monitor it's compliance. (In some cases, the 504 Coordinator also serves as the Affirmative Action Officer or the Disabled Students Coordinator.)

While Section 504 of the Rehabilitation Act of 1973 requires employers to offer reasonable accomodations, it provides no funding to cover the cost of such accomodations. The qualifier 'reasonable' indicates an understanding of employer limitations, but employers are expected to pay extra costs. When the costs are minimal, as they often are, or when the organization has ample funds there is no problem. Modifications which benefit many people, such as curb cuts or elevators may be more easily justified and funded than accomodations made for a single employee.

But today, sophisticated and expensive technology, especially microcomputers, is enabling even formerly unemployable people with disabilities to be employed at levels commensurate with their abilities and to be significant contributors to society. Such technology may easily cost three to five thousand dollars to accomodate a single employee. At a time when every dollar of the SUNY campus budgets is committed for other purposes, there is a need for formal recognition of and provision for these potential costs.

This study reports the results of a pilot needs assessment survey of a sample of SUNY employees with disabilities in the 08 Bargaining Unit represented by the United University Professions (UUP) and of the 504 Coordinators of the SUNY campuses represented by the same bargaining agent. The study was commissioned by the NYS/UUP Joint Labor Management Affirmative Action Committee to: assess the value of conducting a more extensive survey of those SUNY campuses and employees with disabilities whom UUP represents; and get an indication of the feasibility of establishing a Special Assistance Fund to address the needs of present and potential SUNY faculty and professional employees with disabilities.

Our ultimate goal is not only the recruiting and retention of more SUNY faculty and profesionals with disabilities, but provision of those accomodations which will enable them to realize their full potential and maximize their contribution to the University and society. As a step in this direction, this is a needs assessment of the people already in the system. At present there is available no SUNY-wide information about the number of faculty and professionals with disabilities in those SUNY colleges

and universities in the 08 Bargaining Unit.[1] How is SUNY doing? What needs do the employees with disabilities have, and how are they being met?

Accurate information about the size and needs of this constituent group should provide a partial basis for decision making and budget projection. It should allow the UUP to bargain more effectively with the State of New York on behalf of its members with disabilities. It will also provide a model for other bargaining agents and employers to establish the funding necessary to accomodate employees with disabilities and provide the "reasonable accomodations" required by Section 504 of the Rehabilitation Act of 1973, thus putting the UUP in the vanguard.

Plan of the Report

This report is organized in several major sections. First is a literature and issues review. We discuss alternative definitions of disabilities, leading to the positive implication that more can be done to help than was previously thought. We also discuss the accomodations which need to be made to improve the working environments of people with disabilities, stressing the improvements that already have been made as well as what is still to be done. With this background, we describe the research design for this needs assessment and the findings from our lengthy interviews with members of the 08 bargaining unit who have disabilities and our survey of 504 coordinators. We end with an evaluation of our project and recommendations for a UUP fund.

Before setting the context, it is useful to think about what can be gained from hiring people with disabilities. Clearly there are costs and problems, but we should stress the positive benefits that put the costs in perspective.

Why Hire Persons with Disabilities?

The goal of diversity has value in and of itself, and many companies and organizations are increasingly aware of the diversity aspects of the place of people with disabilities in the workforce. Observers feel that this is partly the result of a growing consciousness of industry's social responsibility.

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1. Of the 32 SUNY units, we excluded the SUNY Central Administration (not a college), the Buffalo and Stony Brook Health Science Centers (interviews were conducted with both main campuses) and the Upstate Medical Center at Syracuse University because it was temporarily without a 504 coordinator.

Disability Needs Assessment Project

The United Nations declared the year 1981 as the International Year of the Disabled Person. In recognition of the U.N. Project, the American Bankers Association (ABA) pledged the support of the U.S. bankers. "According to Earl N. Shulman, senior vice president of Seattle-First National Bank and chairman of the ABA Bank Personnel Division's Affirmative Action Committee, the key to successful efforts to use disabled workers is to hire qualified people and, once employed, to treat them with the same dignity and offer them the same opportunities afforded other employees" (Bubb, 1981).

Humanitarian considerations aside, human resource (HR) managers working to expand their pool of qualified job applicants can tap into the intellectual resources of people with disabilities who, up until recently, have had only limited access to the workplace. HR managers believe it makes economic sense to employ a person with a disability and purchase the needed technology. Hiring people with disabilities is seen not only as a sound policy for the company but a wise economic policy for the country as well; employed people with disabilities are tax producers rather than tax receivers. Providing reasonable accomodations for employees with disabilities is being seen as less of a chore and more as a means of increasing satisfaction and productivity. The belief that persons with disabilities have less to contribute is slowly diminishing.

Business is concerned with hiring an employee who can perform quality work, produce a profit (or service), and remain with the organization for an extended period of time. Many studies have shown that employees with disabilities have higher attendance, performance, and productivity and their length of employment is longer than their non-handicapped counterparts (Condon, 1987). Several years ago studies of both private industry and government were done by the Harris Trust and Savings Bank of Chicago to address myths about the ability of employees with disabilities. One study showed that 55% of the employees with disabilities had lower absentee rates than their coworkers. Regarding job turnover, one survey concluded that 83% of the workers with disabilities had a lower than average rate of job turnover. When assessed on job stability, 93% of the employees with disabilities studied rated average or better (Bubb, 1981).

There are also tax incentives and reimbursements offered by the federal government which offer direct financial rewards for organizations which hire a person with a disability. The Tax Reform Act of 1976 and the Tax Equity and Fiscal Responsibility Act of 1982 offer tax savings and credits for the first two years

of the wages of employees with disabilities. Project HIRE reimburses organizations for 50% of the pay of new employees with disabilities for up to six months of training (Condon, 1987).

Cost has often been considered a barrier when hiring people with disabilities. The concept of accessibility is most familiar in the design of buildings and in most cases it only requires some forethought and minor architectural changes. In fact, the new changes have benefitted many others who do not have handicaps. Ramps, for example, are used by parents with baby carriages, bicycle riders, and equipment movers. Many costs are one time expenditures, e.g., ramps, and once in place, can benefit large numbers of people. Buying an initial computer for a professional employee (often a routine condition of employment for a nondisabled employee) may allow an employee with a disability to work unassisted and productively for a long career. Often, costs may be small—lowering a sink for an employee with a wheelchair, providing a handicapped parking spot, etc.

Thus there are sound legal, economic and social reasons for hiring people with disabilities. In addition, it is quite clear that people with disabilities <u>want</u> to work, value their jobs, and work productively. At a recent convention of an advocacy organization of the blind, for instance, there were numerous instances of people willing to invest beyond usual means in their jobs and to find creative solutions to job related problems. People had purchased their own computers or had paid for readers out of pocket. A blind county commissioner contracted with a local taxi service to get him where he needed to go and found this was actually less taxpayer costly than the usual county provided driver. A blind mathematics professor had taught himself to write on the blackboard and could directly communicate with his students even though he couldn't read back his writing (National Federation of the Blind Convention, Denver, Colorado, 1989). Thus, one senses that employees with disabilities are motivated and creative, valuable assets for any organization.

Disability Needs Assessment Project

Part II: Literature

We review relevant literature in some detail because it highlights many of the issues raised in our survey. Also, much has changed since the 1973 Rehabilitation Act, so documentation of details is important.

Below, we discuss issues involved in defining a disability and then consider the various forms of accomodation—legal, archectural, social/psychological, and technological, which are the kinds of accomodations potentially coverable by funding and policy recommendations.

What is a Disability?

Traditionally disability has been believed to be the loss of the ability to perform socially accepted or prescribed tasks and roles due to a medically definable condition. We usually think of physical conditions, visual or mobility impairments, etc. and we usually think of 'disabled' and 'nondisabled' people as if the first set were born with their disabilities and as if the two were mutually exclusive sets. We pay little attention to variation within or across disabilities. These are myths and must be recognized as such if we are to make appropriate public policies about hiring.

The Rehabilitation Act of 1973 provides a very inclusive definition of a person with a disability. 1. Any person who has an impairment which substantially limits one or more of such person's major life activities, such as hearing, speaking, seeing, performing manual tasks, or walking. Handicaps may be either physical or mental, and include diseases such as cancer, diabetes, and epilepsy. 2. Any person who has a record of being handicapped; for example, someone with a history of heart disease or alcoholism. 3. Any person who is regarded as having a handicap; for example, someone with a limp or disfiguring scar (U.S. Department of Education, Office for Civil Rights, 1987).

In the United States, about 43 million people have disabilities (Teltsch,1989). Of working age, at least 13 million Americans have some sort of disability, that's at least one in eight. A total of about 6.5 million Americans have restricted mobility in their arms and/or legs and another 3.5 million people have central nervous system disorders such as muscular dystrophy, multiple sclerosis, cerebral palsy, paraplegia, or quadriplegia (Bowe, 1987).

It should be clear from the definition (the inclusion of cancer or heart disease and a record of substantial impairment) that many disabilities occur later in life due to accident or illness (Bowe, 1987). In recent years it has become much more likely that individuals with spinal cord injuries survive and about half of Americans 75 or older have hearing or sight impairments. Anyone can become disabled at any time.

There is variation across and within disabilities. Of the 10 million people with mobility impairments described above, only about 500,000 use wheelchairs. Some 6 million Americans are seriously hearing-impaired, including 2 million who are deaf. Just under 1.7 million people have poor vision or are legally blind. Yet, 90% retain some degree of usable vision. Deafness and blindness may seem infrequent compared to other disabilities but this may be because both disabilities are relatively rare until people reach advanced age (Allard and Jarboe, 1986; Bowe, 1987).

This variation must be recognized in doing a 'needs assessment' of the people with disabilities. It is too easy to talk in general terms about people with disabilities. For a mobility impaired person, issues of accessibility may be of prime importance; for a visually impaired person, obtaining information; and for someone with a chronic illness, scheduling rest time and working around changing energy levels may be the major concern. This variation needs to figure in policy recomendations.

We are beginning to understand that there are other ways to think about disability rather than focusing on personal physical limitations. Disability can be seen as a relational concept; it can be considered the direct result of the relationship between people, their goals, their environment, and the resources available to them within that environment. A deficient environment may be as much a factor in creating a functional disability as the physical or mental deficit of any person. If accomodations are made to correct these environmental deficits then, functionally, a person may be considered nondisabled. (Read, 1988)

Thus, disability can be viewed interactionally, a building with steep stairs at the entrance and no ramp is deficient for access by people in wheelchairs. Remedying the environment removes the obstacle to functionality. This implies that change is possible. We may not change the fact that people have some physical limitations, but we can alter the way we view them in

relation to their environments. We can consider these people with disabilities as productive, valuable and valued employees.

The Measurement of Disability

Statistical data on disability has been limited because national surveys often define disability as a condition that restricts or limits a person from fulfilling a major social role such as working, attending school or maintaining a home. The wording of questions based on this definition may have resulted in the underrepresentation of those people with disabilities who are able to fulfill normal social roles (Asch,1984). Accurate disability statistics are particularly difficult to obtain because: the relative rarity of some forms of disability creates sampling problems; for various reasons people do not wish to identify themselves as having a disability; and the fact that disability itself is a relative and multi-faceted condition makes definition difficult. Partly in recognition of these and other problems, the American Statistical Association is establishing a permanent committee on disability charged to work cooperatively with governmental and private agencies "to assure effective statistical methodology is employed in disability research and the demography of the disabled". (Hodgson, 1989)

Disability and Work

Because of the improving accessibility of facilities and buildings, one-half million students with disabilities now attend colleges and universities. According to the U.S. Department of Education, in 1987 more than 55,000 students with disabilities graduated with degrees in many fields including business and computer science and nearly 90,000 freshmen entered college (Williams, 1988). Many job training programs focus on teaching computer programming because it is a marketable skill, pays a competitive salary and offers challenging work. Berkeley has one of about 30 programs on computer training. In the program's first eleven years, approximately 170 students in 18 classes were graduated with about 94% being placed in computer positions (Mayo, 1986). Organizations must actively recruit and create an accessible environment for these skilled individuals.

A 1982 study surveyed 2,000 federal contractors and determined that within the 367 responding firms, representing 512,000 workers, 19,200 employees were reported to have disabilities (Collignon, 1986). More recently, the number of persons with disabilities employed by the Federal Government has risen from 145,316 in 1981 to 167,026 in 1987 (Teltsch, 1989). On the other hand, as recently as 1986, it was estimated that more

than 70% of employable blind individuals were currently unemployed (Allard and Jarboe, 1986). A Louis Harris national poll conducted in 1986 and 1987 revealed that most working-age adults with physical, sensory, or mental disabilities were not working and that two-thirds of all working-age adults with disabilities wanted jobs (Bowe, 1987).

Johnson (1986) suggests that workers with disabilities, relative to other minority groups, are: more likely to encounter statistical discrimination because of uncertainty concerning the effect of an impairment on the worker's productivity in a particular job; more likely to be subject to monopsonistic discrimination; and to face prejudice, although the intensity of prejudice varies with the nature and visibility of impairments (Johnson, 1986). The theory of statistical discrimination predicts that employers believe minority workers are less productive and therefore offer them lower wages than other workers. A discriminating monopsonist is an organization which pays the new employee a reservation wage rather than the wage paid to the previous employee (Johnson, 1986).

It has been noted that there are few firm nationwide statistics on employment of people with disabilities - who employs them, what kind of jobs they hold or what salaries they earn. All of the studies have focused on accomodations provided to people actually employed. Neither we nor Collignon found any studies which described accomodations needed by job applicants who were not hired (Collignon, 1986).

But one thing that is clear is that the slower population growth of the 1960's and 1970's will result in a labor shortage by the year 2000 and that this will increase the demand for qualified employees. (Teltsch, 1989). Already, colleges and universities are predicting shortages of qualified faculty in the 1990's and it is expected that this situation will reach crisis proportions for SUNY (Reilly,1989). The demand for the skills and abilities which faculty and professionals with disabilities can offer will be greater than ever at a time when improved technology will enhance the opportunity to use those skills and abilities.

Accomodations

To increase the number of employed people with disabilities, accomodations are necessary. We will review the legal context for these accomodations, and then discuss the architectural and sociopsychological issues that must be dealt with. We will then

consider the growing role of technology. In each case, we will review the issues, focus on the improvements that have been made and the issues that still need to be addressed.

Legal Context

Before 1973, the policy of the federal government toward people with disabilities was represented by vocational rehabilitation, social insurance for work disability, public service advertising such as "hire the handicapped" campaigns, and limited assistance in finding jobs. While well intentioned, these programs had few enforcement mechanisms, many people with disabilities were kept in the closet and hidden, and attitudes of the public were not supportive. Unique individuals like Franklin Roosevelt or Hellen Keller made it, but they did it at their own expense and stand out because they were so few in numbers. A person with a disability bore the onus for his or her success or failure, and little attention was paid to society's attitudes toward that person.

The Rehabilitation Act of 1973 was a landmark piece of legislation, attempting to guarantee the civil rights of persons with disabilities. Originating in the context of the civil rights movement of the 1960s, the law sought to protect people with disabilities from discrimination, to upgrade employment skills and to guarantee the ability to live independently.

But employment protection under the Act depends upon the extent to which an employer is involved with the Federal Government. Section 504 of the Act prohibits discrimination on the basis of handicap by employers receiving Federal funds; Section 501 prohibits handicap discrimination in Federal employment; and Section 503 requires businesses with Federal contracts of over $2,500 to take affirmative action to employ and advance qualified handicapped persons (Collignon, 1986). IN addition, there is a complex administrative procedure to handle grievances and charges of discrimination.

Section 504, which applies to the SUNY campuses, defines a "qualified handicapped person" as someone who with "reasonable accomodation, can perform the essential functions of the job in question" (Album, 1988). Accomodations are deemed reasonable unless they would cause the business to incur undue financial cost or business hardship. According to the U.S. Commission on Civil Rights, reasonable accomodation is defined as providing or modifying devices, services, or facilities or changing practices or procedures in order to match a particular person with a particular activity. Until 1988, when Congress overrode the veto

of President Reagan to pass the Civil Rights Restoration Act of 1987 (CRRA), Section 504 was interpreted to apply only to the specific program or activity receiving Federal funds. The underlying legislative history and the provisions of CRRA now clearly indicate that receipt of any Federal aid renders public employers, such as public colleges and universities, subject to 504 for all their activities (Album, 1988).

Section 508 of the Rehabilitation Act was passed in 1986 and mandated that computers and other electronic office equipment in all Federal agencies, whether purchased or leased by them, be accessible to individuals with disabilities. In 1986, the Department of Education and the General Services Administration worked with the electronics industry to prepare guidelines for electronic equipment accessibility for Federal employees with disabilities. The guidelines ensure that users with disabilities can access and use the same data bases and application programs as other users. They will also be able to manipulate data and related information sources to attain the same results as other users, and will have the necessary adaptations needed to communicate with others on their systems (Bowe, 1987; Kerr, 1988).

The Federal Government has been slow to enforce the Rehabilitation Act. It is the responsibility of The Office of Federal Contract Compliance Programs (OFCCP) to review companies for compliance with Section 503 of the Rehabilitation Act. Any company that does business with the Federal Government must hire people with disabilities and make its facilities accessible to them. On the state level, nearly 90 percent of the states currently incorporate some protection for persons with disabilities in their civil right statutes (Matteson and Stamm, 1980; Peterson, 1981).

Despite these advances, as of December 1989, people with disabilities still lack full and equal protection of the law and equal access to community life. On the Federal level, there is no protection against discrimination in housing, recreation, or employment unless the facilities receive Federal money (Asch, 1984). As of this writing, the Americans with Disabilities Act, which has passed the Senate and awaits House approval, promises to remedy this lack of legal protection. The Act will extend to those with disabilities, the same protection against discrimination given to blacks and women in the 1960s and 1970s. Not only will restaurants, stores, hotels and theaters be prohibited from discriminating against persons with disabilities, but bus and telephone companies will be required to make necessary modifications to serve customers with disabilities. Employers will be required to make workplace accomodations similar to those

already required for businesses and organizations receiving Federal dollars. Much of the controversy over the Act is the concern of businesses about the cost of modifications (Liberation Day for the Disabled, 1989).

The Americans with Disabilities Act is legal recognition that discrimination is one of the biggest problem faced by most people with disabilities. Students of this process emphasize the landmark and groundbreaking character of the 1973 legislation, but the 1989 legislation is expected to extend this protection to all aspects of life and to fundamentally change the lives of many people with disabilities. As in other complex areas, there are difficulties—slow enforcement, vagueness of terminology and misunderstanding— but institutional mechanisms emphasizing the social rather than individual character of disabilities are clearly coming into place.

Architectural Accomodations

The concept of accessibility is most familiar in the physical sense. Architectural designs which enhance accessibility take the form of automatic door openers, curb cuts, acoustic tiles and ramps. These designs seem natural to us and are used by many people, not only those with disabilities. (As above, we reiterate the general benefit nature of these designs.) Some accessible architecture which may be more noticeable are lowered public phones and water fountains, Brailled elevator buttons, and bathroom grab bars. Whether recognizable or not, architectural accessibility has opened up many buildings which in the past have been closed to people with disabilities. Witness a recent lawsuit by a mobility impaired Chicago sports fan concerning an inaccessible stadium.

The architects who designed American cities were not concerned with accessibility, since people with disabilities presumably would not be entering them. The surprising fact is that nothing much happened to change this until the 1970s. Congress did not enforce a requirement that Federal buildings be accessible until it passed the Rehabilitation Act in 1973. It took until 1977 for the government to extend the requirement to buildings erected with Federal grant monies. Architects opposed the measure complaining that the changes would detract from the aesthetics of their designs. Builders feared higher construction costs and universities and other institutions insisted they could not afford the changes. In fact, the American Council on Education fought the act for almost a year. Despite this opposition, architectural accessibility and reasonable

accomodations are now accepted requirements for most new construction. And the changes which had earlier been opposed by college officials later helped institutions with sagging enrollments to attract a new population of students, those with disabilities (Bowe, 1987). Yet, this does not mean that a request for reasonable accomodations has become an easy process. Various horror stories have been reported regarding the cost of modifications to organizations. Periodically, some business associations will stress their concern over high costs and government intrusion. Myths concerning the large sums of money and disruption of work life have kept employers from adapting to the requirements of reasonable accomodations.

The truth is that most accomodations can be made inexpensively using a little ingenuity and a person with a disability is, often, the best resource when deciding what accomodations are needed to permit access to the work area. Changing a desk layout from the right to the left side for a visually impaired data entry operator costs nothing. Consistent findings of detailed surveys have shown that expensive accomodations or modifications are rarely required for workers with disabilities (Collignon, 1986).

Since the 1970s, we have seen a spate of architectural accomodations. No one had thought about curb cuts or ramps before then; now they are commonplace. Communities, businesses and universities have introduced modifications. SUNY campuses underwent great architectural change. Several campuses including Buffalo and Alfred have produced brochures on campus accessibility for those with disabilities.

Finally as was said before, many of these costs have general benefit, the big architectural expenditures are one-shot rather than ongoing costs, but they make the future more secure for this generation and for those to come.

Sociopsychological Issues

Even if an employer is willing to provide the more obvious accomodations, an employee with a disability must too often deal with attitudinal barriers. Perhaps the greatest attitudinal barrier confronting people with a disability is others' lack of knowledge. A Wall Street Journal Article reported that supervisors have uncertainties when dealing with a person with a disability which may result in infrequent hiring (Bubb, 1981). Hidden biases and mistaken ideas from staff may work against such a job-seeker. Even in the course of this small pilot study, attitudes of a few relevant participants working in the field

clearly perpetuated myths about the unproductivity and limitations of people with disabilities. Generalizations about any disabilities are always dangerous, and especially when they imply that the person is incapable of performing their work.

To counter misunderstandings, more and more organizations are sending personnel representatives to seminars or are sponsoring their own programs to educate employers and coworkers to the needs of workers with disabilities. Attitudes and stereotypes about persons with disabilities are being steadily challenged. But in order to develop an attitude awareness, managers must first try to understand what causes their own uneasiness around a person with a disability. Information can only help to change an attitude.

Not only does the public need access to information on disabilities, but the person with a disability must overcome some hurdles. First, people with disabilities need better access to information regarding Affirmative Action Programs. The lack of access to such information has itself been a barrier to promoting job development activities for people with disabilities. Some programs exist which provide information on the laws protecting the individual with a disability and the equipment and technology available. But often it is the responsibility of the potential employee to seek out this information rather than be supplied a copy by the Affirmative Action Officer of their organization.

Today, more persons with disabilities are living in their communities and taking an active part in community life (Bowe, 1988). This is important for other individuals with disabilities as well as for those without disabilities. For the person with a disability it provides a role model and a sense of not being alone; for the person who has no disability it increases awareness. The most rewarding area for making a difference for people with disabilities is the workplace. Human resource managers have seen enough changes over the past five years to consider individuals with disabilities as people first. These attitude changes have encouraged organizations to develop policies to hire more people with disabilities. For example, IBM features employees with disabilities on the job as role models in a video program used to describe the company's job opportunities. For a student with a disability, seeing such a worker in a recruitment video offers encouragement and independence. Although recruitment of people with disabilities is improving, more companies need to demonstrate that they believe the employee with a disability is capable of performing the job responsibilities. What better way to illustrate this than to show an employee active at work.

The need for role models and the support of other people with disabilities is important. Just as in the case of women and blacks, it is sometimes difficult working on jobs where a lone representative of a group deals with stereotypes and the unclear expectations of others. People with disabilities sometimes have to remind themselves of their capabilities in a society which fails to encourage them.

Thus, legal and architectural issues may help get more people with disabilities into the workplace. Once on the job, information, attitudes of coworkers and support from other people with disabilities are important. Access by itself is only the beginning.

Technology

In 1983, the federal government owned fewer than 8,000 microcomputers; in 1989 that figure is reaching ten times that number. Talking computers, software that displays large type, computers that respond to voice and light commands, telecommunication devices, and programmable wheelchairs have made the environment more accessible to individuals who are blind, deaf, and paralyzed. Ten years ago, only about 200 manufacturers of products to help the employee with disabilities existed in the U.S., Canada, and Western Europe. Today there are more than 2,200 including small companies which offer a few specialized products (Williams, 1988).

Talking computers are among the most obvious devices; the majority of them being IBM or Apple. Software can range from $595 to more than $1,295 and the hardware costs between $995 to $12,995. Braille printers are priced between $1,250 and $3,500 (Williams, 1988). Blind users hear text displayed on a screen by using the $600 PS/2 Screen Reader.

The Center for Computing and Disability, at the SUNY University at Albany, writes "prescriptions" for computers, software and adaptive equipment to meet the individual needs of persons with disabilities. Since the Center does not recommend specific brands or vendors, the following are merely listed as samples. Recommendations may include such items as: a keyboard enhancement program (E Z Keys, $1195); a speech voice synthesizer (Votrax Personal Speech System, $449); a software keyboard emulator which allows a person who cannot use the keyboard to use a computer by means of head movement (Words + Software Keyboard Emulator, $1195) (Read, 1989).

Disability Needs Assessment Project

The market for computers among people with disabilities has been neither cohesive, nor one thought of as having much buying power. The lack of volume did not encourage manufacturers to design and market computers which would be accessible and affordable by this group. Recently, that has begun to change. In 1986, IBM set up it's Special Needs Systems Department and Apple has established an Office of Special Education Programs. In 1988, Apple was reported to be investigating issuing discounts to users with disabilities. The Federal mandate that all computer devices purchased or leased by them after Sept 30, 1988 be accessible to people with a disability (Section 508 of the Rehabilitation Act) is expected to provide a big financial incentive to computer companies to improve the accessibility of their products (Kerr, 1988).

When Congress first passed the Rehabilitation Act, computers were not familiar to most Americans. The large pieces of equipment were accessible only to computer programmers and were sensitive to error. Personal computers and "user friendliness" has opened the world of computers to the non-programmer and individuals with disabilities were quick to realize the potential of the computer to help them overcome obstacles in their everyday life. Conversely, the open-access strategies which allow persons with disabilities to transfer information through computer and information systems will be beneficial to a large portion of the non-disabled work force as well.

Information on technology and its benefits to employees with disabilities can be found through several sources:

Accent on Information
P.O. Box 700
Bloomington, IL 61701

Ageline, AARP
1909 K. Street, NW
Washington, DC 20049

Clearinghouse On Computer Accomodation
18th and F Street, NW
Room 2022
Washington, DC 20405

Closing the Gap Solutions
P.O. Box 68
Henderson, MN 56044

Job Accommodations Network (JAN)
Center
Box 468
Morgantown, WV 26505
1-800-JAN-PCEH

IBM National Support
P.O. Box 2150
Atlanta, GA 30055
1-800-IBM-2133

Center for Computing and Disability
University at Albany
State University of New York
1400 Washington Ave
Albany NY 12222
(518) 442-3874

National Federation of the Blind
1800 Johnson St.
Baltimore. MD 21230
(301) 659-9314

Computers are not the only technological devices which aid a worker with disabilities. Some job site accommodations made by one major insurance company include: providing a drafting table, page turner and pressure-sensitive tape recorder for a sales agent paralyzed from a broken neck ($300), renting a headset phone that allows a policy-holder with cerebral palsy to write while talking ($6.01 a month), and supplying a telephone amplifier for a computer programmer with a hearing impairment ($56) (Seaver, 1987 p.29 and 31).

Robots may be the next logical step in assisting workers with disabilities. Work stations equipped with robot arms can change floppy disks and control light switches as well as perform regular office tasks such as word processing. The Health and Human Services Robotics Laboratory of Carnegie Mellon University has developed a PC-controlled robot that allows a quadriplegic to do a variety of office tasks. Dr. Stanley Hirsch, vice president of medical affairs at Harmarville Rehabilitation Center, called it the most important development since rehabilitation has been on the scene (Lavoie, 1988 p.96). The unit costs about $40,000 but managers believe in the long run it will be well worth its price in time and skill that may otherwise be lost.

Technologies which are being developed for able-bodied workers are being seen as useful for people with disabilities. Cordless keyboards which are operated using infrared signals can be used by workers with severe mobility problems. Voice-recognition used in robotic technology would be most helpful for blind and mobility impaired workers. The research being conducted on robotic technology holds such great promise that bionic technician is now being suggested as a career with a future. In the 1990s bionic technicians will range from mechanics who make the bionic arms, legs, hands, and feet of the future to those who are involved in letting the blind see and the deaf hear with new bionic instruments (Cetron and O'Toole, 1982).

Technology has been called the great equalizer. Mary Pat Radabaugh manager of the IBM National Support Center for Persons

With Disabilities, remarks,"I feel very strongly about the role that technology can play today and will play tomorrow. I'm excited about the future and the potential for even greater advances in helping disabled people". (Solomon, 1988 p. 18).

Thus, technology is rapidly influencing individual lives and society. It has opened up new possibilities for people with disabilities and needs to be taken into account in considering employment possibilities.

Summary of Literature Review

The literature thus reviewed highlights the two themes of our study and forms a backdrop for our findings below. It stresses progress and great change over the past few decades. The legal context has been transformed, leading to many architectural adaptations that were unheard of before the 1970s. Technology offers enormous potential benefit to the disabled as well as the nondisabled. At the same time, we see the need for additional improvements: laws are not always enforced, there are remaining architectural barriers, and we have a long way to go on the social/psychological side.

Several issues will come up again in our findings. We emphasize the difficulty in measuring disability and the issues surrounding the varying needs of people with disabilities. Our participants reaffirmed the low cost and general benefit character of much (though of course not all) of equipment. Also, despite the enormous legal and technological changes which have occurred, many of our respondents were relatively unaware of the 1973 Rehabilitation Act in detail, and many were not taking advantage of computer assisted technologies. Though this is a preview of findings out of context, it is worth stating here because these latter perceptions of a group of people with disabilities are in such stark contrast to the objective information.

Disability Needs Assessment Project

Part III: Research Design

This project had several specific goals:

a. to develop and pilot a needs assessment questionnaire appropriate for the UUP 08 bargaining unit members with disabilities currently working in the SUNY colleges and university centers represented by bargaining unit.

b. to develop a questionnaire to be sent to all 504 coordinators of the SUNY colleges and University Centers represented by the bargaining unit.

c. to report the results of these studies. Information from the 504 coordinators is based on a population, so complete information is available on their thoughts and assessments. Though based on limited information, our study of the population with disabilities at SUNY is a better assessment than has previously been made, so our findings in this regard are valuable as well.

d. to determine whether we can make recommendations to the bargaining unit as to the appropriate nature and level of money for a proposed fund based on this information or if a more extensive study of the SUNY population is necessary.

e. to evaluate the piloted questionnaires.

Needs Assessment as a Methodology

There is a growing body of literature based on needs assessments of appropriate sets of personnel (for example: Dolch and Handy, 1985; Evans, 1985; Bullard, 1983; Murphy, 1983; Mueller, Johnson and Washington, 1977). Such a methodology is particularly appropriate for groups with diverse membership whose needs are not well understood by the general public. The foregoing pages should make clear that people with disabilities fit these categories: they form a heterogeneous group, and public information about them is often either limited or based on stereotypes and misunderstandings. Further, given the high unemployment rates, members of the population with disabilities who do manage to get jobs should be a motivated and interesting group. Their stories are worth hearing. We should learn about their needs by listening to what they have to say and letting them speak for themselves (Roth, 1981).

There is one drawback to this methodology. We need to be cognizant of the possibility that the people with disabilities

already in the system are not representative of the larger pool of potential applicants. To the extent this is the case, we will have a good study of the needs of people at SUNY but will be dealing less well with issues faced by future job seekers. This possibility will be addressed below.

In any case, information about the needs of this group of SUNY employees with disabilities has heretofore been basically nonexistent. Given that situation, this first step is an important one.

Questionnaires

Two pilot questionnaires were drafted, one for the employees with disabilities and one for 504 coordinators (Appendices A and B). While we found a few previous questionnaires as a starting point (New York State Department of Civil Service Survey on Reasonable Accomodations, 1989; State University of New York, Survey on Services for Students With Disabilities, 1985; Needs Assessment, SUNYA Professional and Management Confidential Women, 1986), most of our work had to be done from scratch as this is a relatively unexplored topic.

Our employee questionnaire consisted of several parts, parallelling the material we have emphasized in the literature review. We first wanted descriptive information. Who are the employees with disabilities at SUNY? What types of disabilities do they have? What are their demographic characteristics? Do their demographics match those already described for the population in general?

Second, we wanted to know about disability and work. What kinds of work histories have these people had? How had things worked out for them? What accomodations do they need?

With respect to accomodations, sections of our survey ask about the major types of accomodations we have already discussed. What sorts of information do people have about the legal situation? The 1973 Rehabilitation Act was a landmark document; do people know that, and have they taken advantage of the set of new legal remedies open to them? Similarly, there is a great as yet untapped potential in the new technological age; are people aware of it, and how are they using it? Given the cost of technology, how did they manage to provide for what they use? Finally, we asked questions to ascertain the extent to which architectural and sociopsychological accomodations were necessary

or had been provided. Thus, our questionnaire is meant to highlight the main issues discussed earlier. What is the match like between employee needs and employer provisions?

A final issue raised by our questionnaire is variation by campus. Are some SUNY campuses doing a better job with respect to disabilities, and, if so, why? In the context of the relational definition of disability discussed earlier, where disability involves the relation and interaction of a person and his or her environment rather than a simple physical limitation, we would expect variation across environments and disabilities in this regard. Any policy recommendations need to take that variation into account. It is an advantage of the relational definition that it provides more opportunities for us to make changes.

A final issue that arose in writing the employee questionnaire had to do with open vs. closed ended questions. There clearly were specific things we wanted to know, demographics, available campus facilities, work history. However, consistent with the philosophy of a needs assessment we made real efforts to ask open ended questions and leave room (more rather than less) for comments and thoughts respondents might have had that we had not anticipated. Further, as will become clear below, many of our interviews were conducted informally as conversations, using the questionnaire as the basis. This allows for the future possibility that interviewing could be conducted on the basis of a small number of focused questions and more interaction between interviewer and respondent. While either approach has advantages and disadvantages, any future needs assessments of the people with disabilities need to leave room for open endedness and should work to get to know their population rather than assume the most important facts about that population are included on the questionnaire.

The 504 coordinators were interviewed for a number of reasons. We solicited information from the 504 coordinators of all the campuses so we could get a better sense of campus variation. This enabled us to obtain cross-campus estimates of the number of employees with disabilities from people more centrally located in the information system as well as assessments from a person more likely to know of what campus services are being provided. Finally, we have collected information from two sides: the administration and the employee, so we are in a position to compare viewpoints and assessments. Ultimately, if our goal is to have more employees with disabilities, we need to make sure that all players have a good understanding of their

situation and are working in mutual support. Our study puts us in a good position to match perceptions of administrators and employees in a way not often done.

Coordinators were asked a less extensive set of questions than the individual respondents. We concentrated on their estimates of the size of the populations with disabilities at their campuses as well as their views of service provision (mostly closed-ended questions). We asked a series of open ended questions about the hiring process on their campuses and their views about the utility of the proposed fund. We were interested in getting their best estimates in a few areas. Questionnaires were conducted by mail, and again, we don't have as much of a hands-on sense of these people as we do for our sample of people with disabilities.

The Sample

There are 32 SUNY units in the 08 bargaining unit represented by UUP. Of those, we omitted the SUNY Central Administration, two health sciences centers which were part of University Centers being surveyed (Stony Brook and Buffalo) and one other unit which was temporarily without a 504 coordinator. Questionnaires were mailed to 504 coordinators of the other 28 units.

To select the individuals to be interviewed, the project team selected 9 of the 28 remaining SUNY units. Criteria for selection included regional and geographic representation as well as representation by type of school, university center, college or professional school. Where we could, we also tried to overrepresent schools we thought might have large populations with disabilities to increase our sample size and to get a better picture of needs.

Letters were sent to the 504 Coordinator of each selected SUNY unit to inform him/her of the project and request their cooperation in identifying 6-10 faculty/professional staff members with disabilities at their campus to participate in project interviews. Administrative follow-up was done to secure the names, addresses and phone numbers of these faculty and professional staff members. Thus, we relied on administrator selection of people which in some cases was based on self identification by employees.

Two to seven faculty/professionals with disabilities (representing various types of disabilities which fall within the Federal definition of disability) were selected to be interviewed at each of the SUNY target units. Our final sample included:

SUNY Target Unit	# of Respondents
State University College at Binghamton	2
State University of NY at Buffalo	7
State University College at Cortland	3
Health and Science Center at Brooklyn	6
College of Environmental Science & Forestry	3
State University College at New Paltz	4
State University College at Stony Brook	2

State University College at Fredonia - could not think of anyone who has a permanent disability in the UUP bargaining unit

State University College at Plattsburgh - has members of the UUP bargaining unit with disabilities employed on campus, but none were willing to participate in the project.

Interviews

Consistent with the pilot nature of our project and to work within budget and schedule constraints, we varied our interview format and type of interviewer.

Of the 27 people identified above, interviews were conducted with 25. (In Tables I and II below, totals are based on a slightly smaller sample as some respondents were interviewed, but not in the form of a written questionnaire.) Thirteen participants were interviewed in person, nine by telephone, and five were mailed the questionnaire only. Each person was sent a questionnaire in advance of the interview. All interviews were tape recorded and each participant was asked to return the completed questionnaire. Each team member wrote up the results of the interviews and the group met to compare perceptions.

It may be reasonably typical of survey respondents, but it is worth noting here that many respondents wanted to talk and share with the project team. They were curious about what was going on at other campuses, the nature of the project, and were extremely cooperative about helping us make arrangements. Many had concerns which they were particularly anxious to express, and the vast majority took our interview seriously.

We also considered issues relating to the type of interviewer. Some of our project team have disablities. Others do not. We thought some respondents might open up more to an interviewer who clearly had a disability, and our format allows for testing this possibility.

Disability Needs Assessment Project

In the sections_that follow, we first report our findings with regard to the sample with disabilities. Our discussion therein follows an issues approach more than a question-by-question analysis (tables I through IV report specific results and we have appended a copy of the questinnaire with totals for all our our closed-ended questions, Appendix C) because much of what we learned came from people's answers to open ended questions and because there was so much variation in answers. Subsequently, we report the results of our 504 coordinator survey, comparing findings of the two samples. That discussion is more question specific because we were more interested in obtaining factual information from the 504 coordinators.

Part IV: SUNY Employees with Disabilities

Our earlier section on disabilities dispelled three myths. There is more to the understanding of disability than the stereotypic visible conditions commonly used. Within any given disability, there is an incredible range of variation of both severity and accomodations needed, and at least as many if not more people do not have a disability until later in life.

This characterization describes our sample well. We interviewed 25 people, getting a picture of their lives as well as specific facts about them.

Of the 25 people interviewed, 18 were mobility impaired, 3 visually impaired, 2 hearing impaired and the remainder had a nontraditional disability, e.g., heart disease, allergies, etc. Of the 18 people we interviewed with mobility impairments, there is variation: some are in need of a wheelchair or an amigo (device similar to a golfcart), others require crutches or canes and still others do not use any personalized equipment. Nine of the employees with mobility impairments have some type of progressive disease such as multiple sclerosis, muscular distrophy, or arthritis. Four have had a congenital disease, such as dwarfism or spina bifida or an illness which has resulted in their handicap, for example polio. Five have had some kind of accident or spinal cord injury which has resulted in amputation or has impaired the use of their limbs. Some were born with their disability; most acquired it later.

Of the visually impaired employees, two were totally blind. One had some reading ability but had a great loss of central vision. All three used different modes of mobility: one white cane, one seeing eye dog and one needed no assistance. None of the three was born with the visual impairment.

The 'hidden' disability arose several times, most obviously with our allergy and heart disease respondents. It was less obvious but just as notable for people we think of as having stereotypical disabilities. Several of the people with mobility impairments were amputees or in the early stages of a progressive disease like multiple sclerosis. Their disabilities affected their lives, sometimes in major ways, but were invisible to the observer. This was particularly difficult for instance for some who were just having to deal with progressive diseases; they were having to change life styles and adapt, but their distress was invisible to others.

At first glance, allergies and heart disease are not thought of as disabilities. Our potential respondents were unsure about whether they qualified as people with disabilities though the law and the relational concept of disability say they do; their conditions have affected their lives. For instance, to paraphrase one individual's description of his allergies and their effects on his life:

> dust, mold, pollen, 23 different trees, 17 grasses, everything that grows, formal and formaldehyde 'which is everwhere in the wide world', difficulty in hotel rooms with smoking, cleaning substances, plastics; energy loss, sometimes chronic fatigue, uncertainty, about daily changes in condition, sometimes varies throughout day, injections 2 to 3 times a week, medication but work involved in monitoring it, constant effort to keep under control, not always recognized as the problem it is by the public or medical professionals. *1

Whether an individual had a disability prior to their employment at SUNY or whether it occurred during their employment is another aspect which emerged as a factor in determining the need and level of accomodations and modifications. At least nine individuals did not have a disability at the time they were hired by SUNY.

Finally, if some scale of severity were constructed, most of our respondents don't represent the extreme of 'severely' disabled. We found no 'multiply handicapped' people. Many of the mobility or hearing impaired possessed sizable degrees of functionality. This combined with the large number of people whose disabilities occurred after obtaining their job changes the recruiting dynamics.

In sum, 2/3 of our sample respondents were mobility impaired though the severity of the impairment varied. A wide range of disabilities, visible and less so, are represented. A significant number of people became disabled after they had already attained their employment.

Demographics of Disability

With some exceptions, our sample exhibited a demographic profile that presumably should be encouraged. They were well educated (upwards of 2/3 had a masters degree or ph.d., and most had long term employment - the average length of service in the sample was 10 years, and many had been at their institutions upwards of two decades. As this would imply, the average age of

the sample was older; only three were under 35. Two-thirds of the respondents were female.

Occupations are broadly categorized as professional staff or faculty on each of the campuses, but these categories encompass a wide range of jobs. The sample was split between faculty and professionals. People that are listed as faculty members are from many different departments with teaching and research responsibilities. Professional staff include coordinators and directors of services and facilities who aid faculty, staff, and students. Almost all of these positions are full-time and require a great deal of responsibility.

In addition to their positions many of the participants are involved in campus or community activities. Their involvement ranges from full campus level participation (sitting on departmental and university committees) to the spectrum of community activities one would see in any active group: religious and civic groups, theater, volunteer work, sports. In short, these people are active contributors to their environments.

Two other issues of concern here are age and gender of the sample. Given that many people had no disability at the time of employment and given that they are now older, this indicates universities are not actively trying to recruit younger people and have not yet begun hiring on the basis of disability. Rather, they are dealing with a set of people who went through normal recruitment channels, became established and later became disabled. This is a very different dynamic than recruiting and initially hiring a person with a disability. Since many disability issues were not discussed before the 1970s, nor was technology available, the hiring of people in our sample did not involve facing squarely issues of reasonable accomodation.

In this particular sample, we have somewhat more females than males. We have no systematic data on whether this is a sample quirk or a trend holding nationally. Are some progressive diseases more likely to strike women? Are women with disabilities likely to be more diligent in pursuing careers or obtaining an education? Are women with disabilities more likely than men to self-identify? (Some of the women in the sample had life histories indicating great persistence in the face of odds.) In any case, issues of gender compound those of disability for these people.

The exceptions notwithstanding, the main point is that to the extent that this demographic profile is representative, it certainly indicates the kind of employees an institution would

like to have and should encourage. People with mobility impairments predominate, but even this small sample shows a wide variation. Much of this sample is older and their disabilities emerged later in life; to the extent that these are typical of SUNY as a whole, we will need to make more strenuous efforts recruiting younger people and people with more obviously identifiable disabilities. In any case, the sample clearly shows that people with disabilities make stable employees.

Disability and Accomodations: Overview

In one sense, there is much good news in our findings. Many of the people with disabilities in our sample are quite satisfied with their situations and with the accomodations they have worked out. At the same time, it should be clear from the sections above that the numbers of employees with disabilities, even when disability is broadly defined, are small. At one level then, people simply aren't in the system in large numbers. Further, of those in the system, accomodations were made on a personal one-to-one rather than an institutional basis. It was the efforts of the individuals themselves rather than much institutional commitment that made the difference. Improvements could be made on both sides of the spectrum. It will become clear below that our respondents were remarkably uninformed about both their legal rights and the technological advances of recent years. These findings are even more striking when we consider the landmark nature of the 1973 Rehabilitation Act and the great publicity surrounding the technological revolution. On the institutional side, many respondents reported a low consciousness of disability issues and pointed up specific architectural and social/psychological changes that need to be made. In so doing, respondents pointed out the general benefit character of these accomodations for all, not just the user with a disability. Finally, there are a few examples in our study of respondents with some real horror stories, things not working out and getting no help from the institutions when demanded.

General Accomodations

We asked people how their disabilities affected their work (question 13) and what accomodations had been made for them. When answering this, a large number of people said their disability didn't affect their work and that few accomodations had been made. Before being overly pleased about these findings, however, we need to explain the reasons for these sorts of answers:

Many accomodations are easy. Often, accomodations are easier than we think of them. They take initiative from employees, but

once put into place, they are taken for granted and not considered as accomodations. A blind professor has learned braille from childhood and automatically writes lecture notes in braille just as a sighted person would write them in print; a braile writing device is needed but may have been provided long before the person reaches the employment stage. A professor with a minor but noticeable hearing impairment may ask students to submit questions in writing during class when he feels he is not hearing what has been said. A mobility impaired person may exchange some errand running jobs for other tasks that need to be performed in an office. Individuals in wheel chairs designed tools to help them pick up papers from the floor or to reach items on a shelf. The accommodations were as simple as standing to write on a desk, removing the center drawer of the desk so a wheel chair can fit, asking a coworker to answer the phone, or having research assistants carry on most of the hands-on research and test correction.

In short, we were impressed with the creativity and flexibility shown by our respondents in developing a simple but workable set of accomodations. The first thing that may come to mind when we use the words accomodations for the people with disabilities may be physical accomodations requiring large expense, but we were struck by the number of small improvements that a little common sense could produce.

Improvements have already been made. Particularly in the area of architectural changes, respondents who had been at their institutions for a long time period cited improvements since the middle 1970s. At Buffalo, for instance, a committee of employees with disabilities was commissioned to examine all facets of campus architecture and make recommendations for changes. Many of these recommendations were put into place, and a handbook was produced for students and faculty. Some respondents at Buffalo also cited Operation Access, a program in the late 1970s specifically designed to bring in more employees with disabilities. Employees were brought in as trainees, exposed to many areas of campus life and finally placed in appropriate jobs. Many stayed. Most of the other campuses took note of specific architectural changes, ramps, elevators, the idea of handicapped parking spots, that had been built in the 1970s, and respondents were quick to point out the lasting benefit of these changes.

Some people noted that after a period of stagnation, they were seeing a new spirt in improvements. To paraphrase one person's description of some of the current activities going on at her campus:

improvement on campus over last couple of years;_increased emphasis on learning disabilities; new organization called "students for a barrier free campus", like issue focus of title; recent substantial allocation by president for new automatic doors on campus; 'assisted listening' devices installed in Fine Arts Center.

Minimal Needs. Another reason for disabilities not affecting work is that in some ways we haven't yet addressed the problems. Many respondents either had very minor disabilities or had a good match between job needs and personal adaptations. In some ways, again, this is good news because it indicates many accomodations are easier than we might have expected. In other ways, we have not been willing to deal with people who have more severe disabilities or this population has not yet found ways to apply for jobs and find entry into the system.

Examples of respondents with minimal needs and/or good job matches include a woman with a minor mobility disability whose office happens to be on the first floor, a research assistant comes with the job, and hours are flexible. A professor with a heart problem which limits his physical activity felt his job was not strenuous. A few people had flexible job schedules and could take work home on their own time. In some cases, short term temporary accomodations were made for people while they were recovering from an accident or illness.

In short, many situations were working fine. Many accomodations were relatively easy. This is due to the creativity of respondents, the improvements that have already been made and the nature of the respondent population.

Personal vs. Institutional Focus

Many respondents said they handled needs on a personal rather than an institutional basis. Some mobility impaired people described their cars as being extremely recognizable to campus police and parking authorities because of numerous requests. Some people spoke of going to their supervisors and working things out on a completely individual basis. Others simply said they expected to work things out themselves and never thought of going to the institution. These are a set of long term employees, and many commented that they themselves were known and accepted around campus and depended on personal connections for achieving their needs. In this regard, many spoke of an increased willingness to deal with the institution when a need was of general benefit

character or applied to someone else. When the need was their own, they were more hesitant.

There is a need to put much of this on an institutional basis. Where such a basis is weak, it needs to be strengthened. Where it is strong, the word needs to be gotten out to the employees so they know what is available to them. Some stressed the need for a better institutional tone, a top down commitment from the presidents of their schools. Others stressed the hard work they had done to get what they wanted and wanted to make things easier for the next generation.

Architectural Accomodations

Respondents answers suggest that accomodations are needed. We describe the needs our respondents have with respect to our architectural, sociopsychological and technological categories. Then we discuss how the hiring process worked out for most of these people.

Two thirds of our respondents were mobility impaired, and the main types of adaptations that they need are those which aid mobility: alleviating the need to walk distances and having access to all facilities . Ramps, handicapped parking, accessible bathrooms, elevators, automatic doors, on-campus transportation are some of the issues that have come up here.

As we know, many improvements in this regard have been made. Given the great effort that has gone into improvements over the last several decades, it is noteworthy how many of our respondents cited the need for more improvements in this regard.

Perhaps the main concern was parking. A couple of people have handicapped parking places designated for them. For some, great effort was required to get the spot, and lack of understanding of their needs was evident. Most do not have their own parking places and rely on a small number of generally designated handicapped parking slots. There are problems with these parking places, however, especially because parking is a big concern on many campuses, not just for those with disabilities but for the general population as well. In some cases, there aren't enough slots. Over time in some cases, the number of designated slots was decreased due to the more general parking problems. Many adjusted their schedules to get to work early to assure themselves space. In other cases, there were complaints about the location of spots. Some buildings were more parking accessible than others, or the location of parking places wasn't very close to people's building of work.

There were instances of misunderstandings and misconceptions about handicapped parking as well. Some respondents with crutches reported having difficulties because administrators thought handicapped parking was only appropriate for wheelchair people. Some cited the need to renegotiate arrangements as personnel changed. Where a garage was involved, there were reports of lack of help by attendants when the help was needed.

Another common concern was variation in accessibility. Some buildings were more accessible than others. While the 1973 rehabilitation act emphasizes the need for 'reasonable' rather than 'total' accomodation, we were struck by the number of major buildings which were inaccessible—limited access to libraries, science complexes, i.e., major university facilities. Even on campuses judged to be pretty accessible, all cited room for improvement and variation in accessibility by building or disability. For instance, at Binghamton, described as a relatively accessible campus, the situation was described as follows:

> campus basically accessible though science complex more difficult; some dorms accessible, rooms with wheelchair accom, visual fire alarms, braille not there.

A few people had particularly poignant stories of accessibility failure, describing having to crawl or be carried up several flights of stairs. The humiliation involved in this regard is great for these people.

Maintenance is another concern that may often be neglected after original equipment has been purchased. People mentioned having problems with ice removal, broken elevators or automatic doors, etc. Stony Brook has a committee which regularly meets with people from physical plant to discuss what parts of campus are most in need of proper maintainance.

Other issues that were important to smaller sets of respondents had to do with emergency or fire plans (either nonexistent or impractical), the need for better signage indicating handicapped ramps and facilities and the need for better transportation around campus, getting campus vans or upgrading existing ones. The strangest story in this regard was an emergency plan based on using a special ladder (which turned out to be too short).

People with disabilities other than mobility impairments also had some comments about architectural improvements. For the

hearing impaired who are sensitive to acoustics in a room, acoustic tiles can make a difference. Carpeting and bookcases are better than hard floors and open walls for some types of hearing impairments because they make background sounds reverberate. The recomendation is to 'soften hard surfaces.' Obviously, modifications for the mobility impaired are more familiar, but the acoustic modifications may come to have the same character: many require only an initial installation, have a general benefit character and can make a good deal of difference. Though there weren't many hearing impaired people in our sample, we learned much about the ease of accomodations from these respondents.

Respondents with allergies talked about environmental accomodations. To paraphrase one person's suggestions:

> flexible time for employees; no smoking rooms; possibility of moving work stations for employees with severe allergies to different locations; getting air filters, air purifiers might be around $400; good ventilation systems to remove and clean air, getting air intakes off ground level, to avoid gas and oil fumes, ' air intakes are on road on parking lot, smell exhaust coming in, air handling system and air conditioning not seem to work well; old building, sometimes old buildings better because no plastics or wallboards or things giving off formaldehyde, high ceilings and big windows, libraries not have windows, lower ceilings in newer buildings, emphasizes in libraries how fixing the building would be good for building, people and book collections; cleaning the building at night, clean the building in day time with vacuuming raises mold and dust, people using cleaning substances, can't clean it as well as should anyway because so many people around.

Information about the Legal Context

We expected our respondents to be informed about the landmark 1973 Rehabilitation Act. An entire section of the questionnaire for individuals was devoted to this topic. We asked people whether they knew about the rehabilitation act of 1973 and the reasonable accomodation provisions. In the expectation that they would have substantial familiarity with this law, we included subsequent questions asking where they had gotten their information and whether they had filed a grievance under the act. (questions 28-32).

Results were striking. Most respondents were familiar with the law and the idea of reasonable accomodations. However, generally their impressions were vague. For instance, 14 of

the 25 respondents (56%) had heard of the law (question 28). A few more, 20 of 25 (80%), were familiar with 'reasonable accomodations; some people had general impressions that things were changing but didn't have specific details. In some instances, it took people considerable time after 1973 to learn about the legislation. A few people asked members of this project team for more information. Thus answers to closed ended questions show most have a general familiarity with the ideas, but as one talks to these people, the impression is one of remoteness and a vague connection.

People were split as to the source of their information. One third said information was provided by their university. Some learned this after being placed on university committees. Others learned it in unofficial ways through friends in personnel offices. The people most likely to have heard of the law were people directly working in the disability field, and some said they were the ones responsible for bringing the information to the colleges. Still others said information came from newspapers and general reading.

Have people actually used the administrative apparatus set up to ensure compliance with Sections 503/504? Not really, and this is another indication that these issues are remote for people. Only two of our respondents reported making official requests via the 503/504 administrative process. (In both cases, there were no complaints and requests were granted, though not as quickly as some wanted.) The larger point is that most people had not used the process and had dealt with issues on a more informal basis. People said this was easier and that requests were generally granted. This personal approach to requests is consistent with all that has been said so far about people's approach to dealing with campuses in general.

A few people had specific criticisms of the legal picture, feeling that the law was too vague and that enforcement aparatus was weak. One respondent gave a long critique of the idea of 'reasonable accomodation,' arguing that it focused too much on people's limitations and didn't stress the idea of 'alternative techniques' enough.

As the last respondent illustrates, some people in our sample were very aware of the 1973 Rehabilitation Act and of disability issues in general. Some had spread the word around their campuses, worked closely with campus officials to make improvements and were quite active. This characterization is typical of public opinion in general: while the average citizen lacks a solid information base, intense minorities have always

cared a great deal about specific issues. These few people can carry more weight because of their activism.

What do these descriptive findings tell us? In a sense, the findings are positive. A landmark piece of legislation was passed, and most of our respondents at least had a general idea that things were changing. However, many probably had no better an idea of the changes than nondisabled respondents, and many had no direct sense that the law applied to them. Many preferred to use personal rather than legal means to achieve accomodations.

This state of affairs can translate into two ways in which New York State and UUP can become part of the process. There are clearly information gaps here. There should be more official channels for informing people what they are entitled to, and university offices are only partially successful in this regard. Despite a landmark law, information is vague and remote to too many respondents.

Second, individuals stress that they have handled things on a personal basis. There is nothing wrong with this approach insofar as it works and accomodations are made. To the extent that people are hesitant to ask for what they need or believe asking is wrong, and to the extent that personal channels are not working, the UUP could be more of a force in encouraging people and convincing them that official channels are legitimate ones.

Sociopsychological Concerns

Many people felt the need for more information for themselves about disability issues as well as the need to increase attitude change among others. Many felt a sense of isolation. Several indicated that though there were officially designated people on most campuses to handle the needs of students with disabilities, mechanisms for dealing with employees with disabilities were much less institutionalized. Some work was done through disabled student officers or 504 coordinators, but many people simply said they didn't know where to go if they had a problem. Many of the people who had acquired their disabilities after obtaining their job handled the often difficult transitions personally and informally and expressed a desire for more institutionalized procedures. Many wished there had been someone on campus who would have gotten in touch with them about the issues; some had never thought of going to disabled student offices or had had any contact with someone else with a disability.

The need for psychological support came up often, primarily in the context of misconceptions held by nondisabled. Nearly

everyone had several instances where colleagues or administrators misunderstood or stereotyped their needs. Members of physical plants had to be constantly reminded of facility maintainance. Many spoke of the need for more of a top-down institutional commitment to disability issues. Many cited the need to let people with disabilities be independent rather than assume help was needed. Though it was rare, there were a few instances of people with disabilities being pretty much ignored by their colleagues. Colleagues in some cases excluded people with disabilities from department activities. We hear many stories today of problems of racial prejudice as more people of color enter higher education; we need to recognize that much work on attitude change needs to be done in the area of disability.

At the same time, it should be said that many respondents praised their immediate colleagues and credited them with helpful ideas and strong friendships. Others agreed that people were generally willing to help but needed to be taught how.

The need for more collective action among people with disabilities themselves came up several times, both in the context of the need for more psychological support and role models and more employment-oriented collective activity. Respondents were curious to learn what was going on at other campuses, and wanted copies of this project's final report. Their interest came up both directly as they answered questions or as they asked us additional questions during the interviews. A few employees with institutional connections to disability issues noted that they routinely looked to other campuses for information, or, in some cases, used other campuses (SUNY/Albany is an example) as role models.

Numerous respondents indicated that more organization among employees with disabilities across campuses would be helpful. Newly disabled wanted information about how and where to get help. A few people in the sample had traded stories and shared disability experiences. Others cited the need for more unified collective action.

Sentiment in this regard was not universal. A few people indicated they were too busy for additional activities, indifferent to the idea or thought the results were contingent on how such an organization was set up. On the opposite side, some people were extremely enthusiastic, offering to help.

In some cases, employees with disabilities found themselves acting as role models and examples to the nondisabled community. Several spoke of having positions which made them visible on

campus; several faculty members made it a point to explain their modifications to students; one faculty member who teaches physical therapy but needs to use unusual postures due to her disability said her students would inadvertently model her unusual stances.

Technology

Respondents were generally uninformed about technology. Despite the enormous possibilities discussed above, the word has not filtered down to this group of SUNY employees with disabilities. There are several issues:

First, the people in our sample didn't use much computer technology. One of the three blind people had a talking device attached to a computer; the other two had some general idea that there was more technology available than they were currently employing but had no particular desire to familiarize themselves with it. No one else in our sample used technological devices. This could be because our sample does not include many people with severe disabilities it could be because the occurrence of a disability later in life may preclude technological education.

A second issue has to do with training. A few people in our sample worked directly with a disabled population, and they indicated that there weren't enough teachers around. Energetic students generally learned to deal with specific technologies on their own and might pass the word to other people with disabilities. Mechanisms for learning however were not formalized, and the result gives a real picture of underutilization. Equipment itself is not enough; training is necessary as is overcoming the types of computer phobia that are common for the nondisabled.

Contrast this with our discussion of technology above. We know that technology has great potential and already has made concrete differences. A few respondents mentioned the Center for Computing and Disability at SUNY/Albany, so it may be that providing technological information is another area where the UUP could become involved.

Other Needs and Concerns

We asked one question (question 22) about the importance of some specific career related issues which have been asked about on other surveys. Typically about one third of our respondents

didn't answer this question, showing the value of asking questions about needs in a variety of ways in order to get a comprehensive assessment. Answers that were given typically reflect the diversity of the sample. About half the respondents wanted continuing career development. About a third each emphasized the need for more funding for their own research, the need for a support group or more networking among people with disabilities and more time for research. Better office space and a desire for more advanced degrees were not major issues for these people.

From this, we learn something about things not needed. We see some ways in which people with disabilities are concerned about the same kinds of things that their nondisabled colleagues care about: time and funding to do their work, and we get an idea that more networking might be useful to these people.

Summary of Needs and Accomodations

In the above pages, we have considered respondent assessments of various types of accomodations. Space wise, we have devoted most time to mobility and archectectural issues. However, this is an area where variation is the rule. Social/psychological issues, the legal context and technology are all important. Architectural fixes are not enough. Spending money in and of itself is not the only answer. There is other, less costly, but equally important, work which needs to be done.

Hiring and Promotion Process

The largest class of employees is people whose disabilities became evident after the time of appointment. Situations were handled on a one-to-one basis. On the positive side, this meant that none of these people had lost their jobs. It was generally assumed that people would continue employment in the same or a related position. This assumption of continuity was made even in cases of relatively severe disability. People generally reported that supervisors handled their situations well and were willing to make minor accomodations: room rescheduling, purchasing low cost video teaching materials, managing short term job reassignment, flexible hours, etc. People particularly reported support from immediate colleagues if not always higher level management.

There is a negative side to these people's circumstances. There was no institutional response. Not many people reported reported receiving information from the institution, for instance, regarding 503/504 at the time of hiring. This was aggravated by people's unwillingness to make requests on their own behalf if those requests were relatively major. One person was willing to

ask for room rescheduling and the purchase of some low cost equipment but hesitated to ask for a needed research assistant. Others simply assumed it was their responsibility to make their own accomodations. A few people made requests which they claim were not filled. A few cited the difficulties of being 'pioneers' and the first people to attempt continuing full duties with a disability. Others noted that difficulties and hard work were involved in the process even though ultimate outcomes were positive.

For the people who had disabilities at the time of employment, many credited the 'right timing' and a 'good match' with their getting the job. One came as a result of a positive recruiting effort aimed at hiring people with disabilities. Others came because at the time they were looking for work, the university was expanding a program in their area. A few faculty members cited the relative of ease of obtaining a position in the 1960s, especially if a degree was from a good school. A couple had gone out of their way to do extra graduate school teaching to lessen any concerns as to their qualifications. Thus, as for the nondisabled, being in the right place is important, but people with disabilities need particularly to demonstrate qualifications, either with credentials or demonstrated experience.

People's needs were accomodated, though not always as completely as they wanted. The visually impaired people were provided with semester though not summer readers. One came with a personal computer but had difficulty getting it repaired.

Retention and promotion is another story. Of the 27 people, there are only 10 permanent appointments; the others being term, temporary, or part-time appointments. (Some of the people with temporary appointments have actually been at their institutions for a long time.) A few did mention that they believed they had not been promoted or given a permanent appointment because of their disability. There were a couple of cases of alleged discrimination when people explicitly said they had not been considered for a job they were clearly qualified for. All this indicates that retention/promotion and full employment are as important issues as actually getting in the door.

Bad Situations

For most respondents, jobs were working out. Many had complaints and were concerned about the issues we have already raised. It is important to say that for a few respondents, things were not working out. They reported having difficulties in not a few but all the areas we have described. They had serious

complaints about unresponsive systems or colleagues and were extremely dissatisfied. They wanted to talk with us to express their dissatisfaction.

The specifics underlying the dissatisfaction will not be reported here due to confidentiality. The issues behind the complaints are not unique and have already been discussed. More generally, it is noteworthy that a few people are extremely dissatisfied with the system. In addition to equipment and architectural needs, more awareness on the part of colleagues and an institutional commitment to disability issues which is perceived by respondents would have helped these people. In some of these ways, the UUP could take a leadership role.

Provision of Services

Thus far we have talked in general about respondent perceptions of their needs and the types of accomodations which have been made on their behalf. Findings presented have been primarily based on answers to open ended questions.

We also asked respondents a series of closed ended questions asking whether a wide range of specific services existed on their campuses. Our list included architectural modifications, a variety of devices for the visually and hearing impaired and library and other support services.

We included these questions in order to get systematically specifically information as well as the general context discussed above. We also wanted to compare respondent awareness of their campus services with the 504 coordinators (see below).

Most of these questions are adapted from past surveys. While we think the results are instructive, there isn't much theory behind the questions (see question 34 and 36). They overemphasize issues of accessibility, items vary in importance to respondents (parking is a bigger issue than brailled campus maps), and these are by no means a complete list of needs of the these people. Also, many of these are yes/no questions which fail to indicate the extent of service provision. Does a campus library have an extensive braille or cassette collection, or are there a few out-of-date reference books? Is there specially adapted furniture in one room or is it divided across campus as needed? Finally, these services vary in usage: handicapped parking, curb cuts and ramps are the legacy of the 1970s; computer assisted devices for the hearing impaired are just coming into their own, and audible

walk lights for the visually impaired are not very common and are sometimes controversial. Thus, while useful, we need better theories behind these types of closed ended questions.

Tables I and II which list respondent perceptions of campus provided services, make several general points (see UUP row for each service; coordinator and ratio figures will be discussed later):

First, many respondents didn't answer our questions. They didn't know what services were provided if the services in question were outside their area of disability or need. Several said they had to go check and ask around in order to answer our questions. Thus, while respondents appeared to have the information they most needed, we see again an information gap and the difference between service provision and knowledge of that provision.

With respect to the answers that were given, we find the following situation:

Accessibility

Consistent with the open ended questions, respondents reported some progress on basic issues. Most said there is parking for people with disabilities, wheelchair accessible facilities and curb cuts. Rooms have been moved and classes rescheduled.

However, we see again that there are still gaps in provisions of even these basic services. In some cases, question the wording allowed respondents to say a specific service was provided in 'most', 'some' or 'no' cases. The 'some' option was used frequently, reminding us that these are not yes/no concerns. For example, 65% said there were wheelchair accessible elevators in 'most' cases, and 35% said in 'some' cases. Thirty-eight percent said there were wheelchair accessible phones in 'most' cases, and 63% more in 'some' instances. Thirty-three percent people said 'most' routes were kept ice free and open, but 55% said 'some'.

We also know that the provision of a service doesn't ensure problem-free use. Parking is the prime example. Most campuses provide for handicapped parking, and a few have reserved parking for specific individuals with disabilities. As we know from the respondents, however, parking is still a prime concern, and satisfaction with details varies by campus and individual.

Services for Visual and Hearing Impaired

From the viewpoint of respondents, services for the visually and hearing impaired were less common. Large numbers of respondents simply didn't know what was available on their campuses. Of those who thought they were informed, most thought there were notetakers . About half thought there was adaptive equipment for the visually impaired: large print materials, various types of enlargers and magnification devices and cassette recorders. Even fewer thought there was braille material: books, campus maps or cassette books.

The same picture held for the hearing impaired. About half our respondents thought there were signers at public events, interpreters or telecommunication devices. Fewer thought there were adapted phone devices.

Library Services

We asked a specific question about library services. Results are consistent with the picture of accomodation to personal needs rather than an institutional basis. Respondents thought that library personal tried to be cooperative but that requests were handled on an individual basis with no institutional plan.

Informational Services. Consistent with our earlier findings, informational services are not seen as provided. Only 13% said there were special orientations for employees with disabilities. Only a few thought there were special newsletters or material highlighting community resources for people with disabilities. Few thought there were campus maps/directions adapted for the visually impaired. Loans of word processors and computer equipment were uncommon. Provision of services and getting the word out about them are two different things.

For the most part then, these closed ended questions present a similar picture to what we have already seen: progress on accessibility issues, gaps in the provision of information and a good deal of uncertainty on the part of individuals about disability issues of only indirect concern to them. More will be said about service provision when we discuss the 504 coordinators' findings below as they can give a more complete picture of what campuses describe themselves as doing.

Within-Campus Variation

For four schools, Binghamton, Brooklyn, Buffalo and New Paltz, at least two and as many as seven respondents answered our closed-ended questions about services. This gave us a chance to compare answers on approximately 40 items. The dominant response pattern was agreement. If some people thought a service was provided, others were likely to concur. If people thought a service was not provided, others agreed. Excluding 'don't knows' this means that there was substantial agreement by potential users on the extent of service provision. There was some variation by school: higher degrees of 'don't know' in Brooklyn, very high agreement among the two Binghamton respondents. Again, excluding people who lack information, this means that we can expect to get reliable information from a few participants at each school; larger samples for these questions are unnecessary.

Disability Needs Assessment Project

Part V: 504 Coordinator Findings

Mail questionnaires were sent to the 504 coordinators at 28 of the 32 SUNY campuses which are part of the 08 bargaining unit, represented by UUP. We hoped to gain two types of new information with these questionnaires.

First, a broader perspective. These people, more centrally located in campus administrative structure, potentially can give us a more complete overview about people and problems at individual campuses. Aggregating their responses can in turn yield a more complete picture of what is going on SUNY wide.

Second, they provide a different perspective. Since 504 mechanisms are a major force in implementing campus activities and enforcing nondiscrimination, coordinator views need to be considered for funding and planning purposes. Also, particularly in the context of a needs assessment, we need to know whether different particpants in the process see that process in similar ways. Do these people see the needs of people with disabilities in the same terms as the people themselves, and, if not, why not? To the extent that partipants see things differently, lessening these differences may be a valid goal of future efforts. Finally, since this is a pilot study, comparing the perspectives of two groups should allow us to make better recommendations about efficient ways to collect information in the future.

Sample and Questions

We chose to interview 504 coordinators rather than affirmative action officers on the assumption that the 504 coordinators were more directly involved in disability issues. In about half the campuses, the same person held both jobs. A third choice would have been to interview directors of disabled student offices, who in some way might be the most knowledgeable administrative people on disability issues, but we wanted people who were directly responsible for working with employees with disabilities. This ambiguity supports the view of our respondents that due at least in part to their small numbers, the position of an employee with a disability on a campus is not institutionalized. It is often unclear who on campus is in a position to help.

Respondents were asked about several areas, parallelling the employee questionnaire but focusing on aspects where 504 coordinators could be most useful:

1. number and type of employees with disabilities on campus

2. campus services and accomodations to people with disabilities
3. views about the workings of the 504 process on campus
4. uses of a UUP fund for employees with disabilities

Of the 28 coordinators who were mailed questionnaires, we received responses from 22. In many cases, the 504 coordinator role is only a part of a person's responsibility, and often, not the most important part. Also, in contrast to the respondents with disabilities who indicated surprise at being interviewed, these people complained about being overburdened with questionnaires and found little to distinguish ours. On our part, we had to make repeated call backs requesting people's responses, and questionnaires trickled in over an almost six month time period. This again contrasts with our sample of employees with disabilities.

In the following sections, we discuss findings on each of the parts of the 504 coordinator questionnaire listed above.

Estimates of the Population with Disabilities

One question (question 4) provided respondents with the definition of handicap from the 1973 Rehabilitation Act. Respondents were asked to estimate the number and types of people with disabilities on their campus and to comment on the accuracy of estimates (question 5). While there are many problems with these measures, they still are the best estimates we have. They are the estimates universities use for planning purposes, and at least at some gross level, they provide some ranking of schools.

However, it is difficult to measure disabilities and keep track of people with disabilities. In answer to a closed ended question asking how accurate their estimates were, only 5 of 19 said they were very certain of their estimates, 9 said fairly certain and 6 said very uncertain. Three did not answer the question (question 5e). A few of the respondents expressing certainty qualified their statements to apply only to people who had self identified themselves as having a disability, yielding an incomplete campus picture. Others pointed to difficulties of finding people with hidden or less visible disabilities, reminding us of some of our respondents who talked about the difficulties associated with such conditions.

Evidence for confusion and disagreement can also be found in the methods respondents used to generate their estimates.[2] These ranged from 'personal knowledge' and 'general observation' to more systematic methods like personnel files or the above mentioned questionnaires asking for self identification. In all, our responding campuses were split about half and half between those who attempted some method of systematic counting and those who relied on their general impressions.

These cautions aside, there are employees with disabilities at SUNY (Table III) though by this count, not many.[3] Our totals indicate 334 across the responding campuses. About half of these were mobility impaired, 10% each hearing and visually impaired, and the remaining 30% were not classified as to disability. Of the total 334 across the campuses, just over half, 168, were in the 08 bargaining unit. Of bargaining unit members, approximately 67% were teaching faculty, 30% were non-teaching professionals, and a handful were librarians.

It is difficult to interpret these numbers without comparative figures. The predominance of mobility impairments is consistent with nationwide data and with our sample respondents. The large percentage of people with unspecified disabilitiies matches the confusion that generated the numbers. Variation is also the rule, as we see all types of disabilities here and a split between faculty and non-teaching professionals.

What do these aggregate numbers say about our sample? Our sample was not intended to be representative, but mobility impaired people made up half our respondents. Aggregate numbers indicate 2 to 1 ratio of teaching to non-teaching professionals; the split was closer to half and half in our data. (We had no particular questions ascertaining where and how the faculty/professional distinction made a difference.)

Perhaps more instructive is the variation by school. The mean number of people with disabilities across responding campuses

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2. A third indication of estimate difficulty can be seen in that there are some discrepancies between estimates of types of disability or occupations of people with disabilities and total counts (questions 4, 5a through 5c).

3. These are underestimates as the University Centers of Binghamton and Stony Brook were among those not responding to this question.

was 17, and the median was 8. This indicates a skewed distribution, a few campuses having a large number of people with disabilities, and many having a small number. Thus, of the campuses, 5 had 20 or more people: Albany, 20; Farmingdale, 20; Brooklyn Health Sciences, 27; Alfred, 40; and Buffalo, 145. Those 5 campuses together accounted for more than half the population. Some campuses have high concentrations of people with disabilities (some may be higher than expected given their community size or location, Alfred and Farmingdale), but many campuses, mostly the smaller ones, have only a handful of people.[4]

It can also be seen from Table III that most schools had a substantial proportion of the population with disabilities in the 08 bargaining unit (column 2). Most had a split between faculty and professionals, though the proportion varied by school (column 3). The proportion of mobility impaired varied by school from a low of 16% to a high of 100% (column 4), and many schools had large contingents of people identified as having a disability but whose disabilities were difficult to classify (column 5). The table does not show a distribution of visually or hearing disabilities by campus; numbers are generally small. Rough estimates can be obtained by adding columns 4 (mobility) and 5 (unclassified) and subtracting from 100%.

Two findings stand out: the low number of employees with disabilities and the great variation by school. Both these findings support the need for more cross-campus mechanisms for dealing with these employees.

Provision of Services

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4. Numbers in this paragraph are based on total number of disabled employees (question 4). Focusing only on the 08 bargaining unit, the mean number of employees is 9, and the median is 5. Just over half the disabled employees on a campus are in the 08 bargaining unit. This again indicates a skewed result. The five schools with the largest concentrations of disabled employees are also the schools with the largest proportion in the 08 bargaining unit. However, the percentage of 08 bargaining unit members to the total employees varies by school, about one quarter for Alfred, half for Albany and Buffalo, and upwards of 60% for Farmingdale and Brooklyn. We don't have complete enough information about the campuses to account for these differences, but they indicate that the campuses are hiring different populations of employees.

Disability Needs Assessment Project

Paralleling the questions given to the respondents, we asked 504 coordinators about specific services their campuses provided to people with disabilities (questions 6 through 12). We repeated the lists of specific services discussed above, and we asked open ended questions allowing people to add information on their own.

Unlike the individuals with disabilities, the 504 coordinators did claim to have information. They answered our questions and expressed few 'don't knows'. The picture they present is more complete than that for individuals because we get a SUNYwide portrait. Tables I and II present the frequency distributions of services across the 22 campuses, and Table IV shows how each campus is doing across a variety of services.

For the most part, the picture given by coordinators at least in its general outline is similar to that described above by the respondents. Due to the similaritities, we will leave the specific numbers to the Tables. Campuses do provide basic architectural services, particularly for the mobility impaired. Services to the visually and hearing impaired are provided but to a lesser extent. Library services are provided particularly on an as-needed personal basis. Campuses are not doing well on getting information out to people.

We focus here on new information which has been gleaned from the coordinators and on some differences between the coordinators and population with disabilities.

Library Services

While findings are consistent with the sample of employees with disabilities, we get a more detailed picture here of exactly what libraries are doing. About half the 504 coordinators stressed that libraries were cooperative but that requests were handled on an individual basis with no institutional plan. Of the remaining half of the campuses, most had minor accomodations. One campus had noted high contrast markers on stack shelves, and another reported brailled elevator buttons. (Admittedly, these may be helpful to some individuals; however, they do not determine the difference in using vs. not using a library). Other campuses had special carrels or areas for people with disabilities to work, some form of magnification equipment for the visually impaired, some degree of braille, large print or cassette reference material, or reading machines. Some advertised special arrangements by which mobility impaired people could get elevator keys.

A few campuses had more extensive programs: staff specifically assigned to help, runners, and major study areas. In a few cases, services were provided on a more institutionalized basis, though the focus clearly emphasized student more than employee needs.

Other Services

Coordinators mentioned several adaptions that had not come up elsewhere in this study: lifts for swimming pools, equipment loan programs, on campus reading programs, and phonic ears (for hearing impaired). Many campuses had services tailored to students: assistance registering, specially proctored exams, attendant services, and support groups and counselling. We know from our interviews that employees were often unaware of these services or did not take part.

Costs

Both coordinators and respondents were asked about the costs of accomodations. We have listed as many devices as we could in Table V, along with their approximate costs. Our list is meant to be illustrative rather than complete. Often, respondents didn't have precise information and said that specific costs were not a barrier for them. However, we want to give the UUP some idea of the types of costs involved with this equipment.

Differences Between Coordinators and Individuals

In Tables I and II, we contrast coordinator and individual findings. For each service, we list the percentage of each group who said a particular service was provided and give a ratio between the two numbers. These ratios are intended as a measure of difference, but in and of themselves they are misleading given that the groups are not matched. The coordinators come from most of the SUNY campuses, and the individuals from a handful. Still, the ratios are a quick way to begin looking at differences.

(Ratio = coordinator percent divided by individual percent. Numbers considerably less than 1.0 mean coordinators are less likely to think a service is being provided; numbers greater than 1.0 mean coordinators are more likely to say a service is provided. Numbers about 1.0 indicate that about equal proportions of each group think campuses have a particular service.)

Looking first at the percentages, the major point is that there is a good deal of agreement. Where over half of one group thought a service was being provided, more than half the other

group agreed. Similarly, there was agreement on the services which were not being provided. This degree of agreement is striking. Many percentages are quite similar.

There are two notable points of difference. First, respondents were more skeptical than coordinators about parking and ice free ramps. Ninety-five percent of the coordinators thought that handicapped parking was available in 'most' cases compared to 75% of respondents. Sixty-four percent of the coordinators thought ramps were kept ice free and open in most cases compared to 33% of the individuals. The people with disabilities were more likely to use the 'sometimes' option here, and the differences here echo their more qualitative judgments.

Second, 71% of the individuals thought there was on-campus transportation compared to 18% of coordinators, who are more likely to know. This finding could show lack of knowledge on the part of those with disabilities, many of whom are drivers having little need for on-campus transportation services.

Coordinator/Individual Agreement

For the two schools where more than 5 people were interviewed, we directly matched coordinator answers with individuals. In most cases again, there was agreement. Where people with disabilities thought a service was being provided in most or all cases, coordinators generally said there was at least some degree of provision of that service. At Buffalo, the coordinator said there was no handicapped signage at building entrances while respondents thought there was. The coordinator said that several braille services were available, and respondents were split, a few feeling these services were provided. While, everyone agreed that parking was provided in most cases, there was some disagreement about the ice free ramps. The same pattern of basic agreement held at Downstate Medical Center.

In summary, coordinator and individual perceptions are very similar. There are a few differences on major issues like parking and ice free ramps which appear to be more problematic for the people with disabilities. The picture presented in this section is similar to what we have already seen for respondents.

Variation by School

Table IV shows the variation of service provision by school. Coordinators were asked 6 questions about services, (questions 6-10 and 12). Questions 6 and 8 are lists of respectively 15 and 23 services; for each campus, we counted up the number of services

provided. Questions 7 and 12 asked whether there were orientations for people with disabilities and rooms rescheduled for people with disabilities; we gave these a yes/no score. Question 9 asked about library services; we coded this 'yes' if the school claimed to provide services on an institutional basis of any sort as opposed to an 'as needed' approach. Question 10 asked for whether any additional services were provided; we scored this 'yes' if any were mentioned. Our coding procedures were lenient: on questions 6 and 8, the lists, if a service was provided in 'some' cases, we scored it as a yes. Open ended questions were similarly scored to the benefit of the campus, though as we have seen already respondents are not always satisfied with campus facilities.

For each of the 22 schools for which we have information, we show the coordinator's answer to each question and then provide an overall tally which can range between a low of zero and a high of 43. Admittedly, this is a crude index, but it does give a first cut at campus variation.

The picture from this table is consistent with other information. Services are being provided, but there are gaps. Of the 15 services asked about in question 6, with an emphasisis on mobility impairments, an average of 5 services were being provided. On question 8, which focused more on visual and hearing impairments, the mean number of services provided is 10. (Earlier we said that basic services were more likely to be provided for mobility impairments; higher numbers on question 8 do not particularly contradict this because the number and type of services vary. Most schools relocate rooms and have at least some type of library service, but few have special orientations.

There is variation by school. The mean number of services on question 6 was 5; the range listed as being provided was between 1 and 10. The mean on question 8 was 10; the range was 2 to 20. The mean total number of services is 18; the range is from 5 to 32. Focusing on the 'total' column, six schools – Albany, Alfred, Farmingdale, New Paltz, Purchase, and Stony Brook - come out highest. Three of these, Albany, Alfred and Farmingdale, are among the five schools which had the highest number of employees with disablities. Three schools, Geneseo, Morrisville, and Potsdam, come out particularly low. Both Geneseo and Morrisville are among the schools with the lowest number of employees with disabilities.

The Hiring Process

Coordinators were specifically asked how the hiring process worked for people with disabilities on their campus. On most campuses, standard recruiting procedures were followed. Most coordinators stopped with that statement. A few specifically said that affirmative action procedures were followed and that reasonable accomodations were discussed after an applicant raised the issue. Thus, coordinators varied in their sensitivity to 504 issues, some specifically mentioning them and others not. Coordinators unanimously said that costs and resources were not a barrier to hiring a person with a disability. Theoretically, this may appear to be the case, but we know that some of the opposition to the Americans with Disabilities Act is based on the perception that 'reasonable accomodations' will create additional expenses for employers; we know that some adaptive technology can be expensive (see Table V); and we know that SUNY departmental supply budgets are already overstrained.

Uses of a Fund

We asked 504 coordinators several open ended questions about remaining barriers to employing people with disabilities and possible uses of a UUP fund. Answers varied in both length and quality; this is an area where a few good thoughtful suggestions are worth more than the most frequent easy answers.

Perceptions about remaining barriers paralleled those of the respondents though quantification was not attempted. Many cited the incomplete nature of architectural/accessibility issues already discussed.

Others pointed to the need to buy adaptive equipment, some arguing this would be a means to recruit new people as well as help the older cohort. Comparing these answers with those of employees with disabilities, the new equipment might have more impact on a few people or on potential new recruits because the people already in the system are not aware of or do not need this equipment. There is a gap between supply and demand.

Still others pointed to the need to educate employers as to the capabilities of people with disabilities. They also cited the difficulty of attracting people with disabilities to areas with little public transportation or accomodations. They identified the same social/psychological issues as did the respondents.

Coordinators had numerous suggestions for uses of a fund and thoughts about issues such a fund raised. The great majority

thought a fund would be worthwhile. We list some of their ideas here and discuss them in more detail in the final section of the report.

1. More networking across campuses: SUNYwide conferences, more consultation among offices concerned with disabilities across individual campuses, e.g. 504 coordinators with disabled student offices.
2. Emphasis on computer and adaptive equipment: SUNYwide equipment loan programs, provision of expensive equipment that specific departments are unable to provide.
3. Use of a fund to decrease the remaining accessibility gaps.
4. Importance of publicizing a fund to employers as well as job applicants so the employers don't too hastily reject an applicant.
5. The importance of speed in processing requests. Perhaps a local office on each campus to approve small requests in addition to any SUNYwide administrative apparatus.
6. Issues of administering the fund.
7. The need for better record keeping of employees with disabilities.
8. Increase emphasis on learning disabilities.
9. The importance of allowing part of the funding uses to be left open and determined as needed.
10. Need for better recruitment outreach methods.

Summary

Questionnaires to 504 coordinators were supposed to put findings from our small sample of people with disabilities into a broader perspective. As is clear from the above, this was a worthwhile effort. We obtained more precise estimates of numbers of people with disablilties, and at least by these measures, the numbers are small.

By and large, we get a picture which parallels the views of the employees with disabilities. We see a few campuses with many people with disabilities, and the majority of campuses with a few. Thus, arrangements and accomodations are made on a personal and ad hoc basis rather than a routinized one. There is general agreement on the types of services being provided.

Basic access is being provided though improvements are needed. Much is being done on a case by case basis though a few institutions have substantial programs. Much less is being done

on the informational/social-psychological front, and the gap between service provision and usage again appears. Technology is underutilized. In all of these aspects, there is considerable variation by school.

Disability Needs Assessment Project

Part VI: Evaluation and Recommendations

Evaluation of Disability Questionnaire

We have not drafted a fully revised questionnaire after having conducted our pilot study, but some changes are in order for the future. Many were organizational and minor, but we learned much from the pilot.

First, it is worth reiterating that much was learned from letting people tell their own stories, including open ended questions, giving people ample opportunity to talk and expand the general nature of the conversation. We feel that more was learned from these respondents via the personal contact and in future would recommend similar types of interviews with 504 coordinators or those of them who were most closely connected with disability issues. In addition to getting a better sense of what these people's lives were like, we got some of our most useful information from people in passing or in answer to a different question. We also got a better sense for how people were or were not understanding our questions. Thus, we asked people whether their disability affected their work; many said no, on the understanding that we were somehow calling into question their ability to do their job. Other questions indicated the accomodations they made in order to do their job.

We learned many specific things as well. Any study of work and people with disabilities (and for that matter other minorities) needs to include sections on retention and promotion in addition to the more obvious aspect of hiring. Additionally, we need to take full acount of the fact that many people become disabled on the job or later in life, rather than assuming they all had grown up with the disability. Many have progressive disabilities. Our questions, and those of the few other questionnaires we have seen, have not adequately taken these less stable aspects of disability into account.

We asked many specific questions about service provision and needs. Some of this material was taken from other questionnaires. While somewhat informative, we got our best information from open ended questions. In the long run, with the exception of parking, these services vary in importance (ramps vs. braille maps), in who they help and in extent of provision even with a given service (how extensive is the braille collection in a library?) In the future to better evaluate answers to these questions, we need better concepts underlying these services.

In addition, asking questions about whether a service is provided does not say much about its effectiveness. Parking is the example here. Handicapped parking is provided by most campuses, but, as we have seen, parking is also a problem on most campuses. It is a problem for all employees, not just those with disabilities. Things may be better on a campus given some as opposed to no handicapped slots, but we have still seen that parking is on people's lists of difficulties.

Another issue is that many respondents had much less consciousness about the issues of their own disability group, never mind other types of disabilities, than we had thought. Thus, though future surveys need to make provisions for people's legal and technological knowledge, to the extent that our findings are indicative, many people have very limited knowledge of the legal context. They have less knowledge of what is available on their campus even for their own disabilities and often just guess or are ignorant about what is available for other disabilities.

Many minor changes should be made to our original questionnaire. It turns out that our first work related question asked people if their job had ever been terminated due to disability. This proved embarrasing to ask relatively near to the beginning of a survey. In addition, we need to distinguish better between a 'don't know' answer and a 'no', especially in the case of very specific questions asking whether particular services were provided. Finally, some respondents were sensitive to language, preferring 'persons with disabilities' (the language consistently used in this document) to 'disabled persons'. They felt that the former delineation better emphasized that they were first and foremost human beings and that the disability happened to be one of any number of characteristics with which they might be identified. These language issues should be consider in the drafting of future questionnaires.

Did the interview format, mail/phone/person make a difference? We would rule out mail surveys for future studies of individuals with disabilities. Too much was learned from personal contact with respondents. We learned valuable information from them, and they learned from us. We obtained valuable information in ad hoc ways. Contact helped increase respondent awareness, and in the context of the study, this is a useful function. Also, this is a busy set of respondents, and reenforcement was needed to get many to fill out their questionnaires. There is no doubt of their interest in the project, but they still needed the stimulus of personal contact and followup.

Within this context, phone vs. in person made little difference, given the understanding that the phone conversations could deviate from and expand on the questionnaire when appropriate. We obtained useful information from both formats. The on-campus visits certainly lent atmosphere, but information appeared valid from either source.

A final issue of whether interviews should be conducted by an interviewer who has a disability probably depends on the purpose of the study. If one need is to inform employees of their rights and opportunities, we feel an interviewer with a disability or at least someone with a good sense of disability issues made at least a marginal difference. Some people asked more questions about what was available. Some were more encouraged to ask questions about what other campuses were doing or what accomodations had been made for the interviewer. Differences were probably only marginal here, but at least some people with disabilities should be involved on any project of disability and employment.

Changes in Disability Questionnaire

#8 should read "What year were you born?"
#9 should read "What is your gender?"
#11 should be moved and should include "denied promotion"
#16 should include " or when you became disabled, if it occurred after you were hired"
#18 many of the participants were not sure
#19 & 20 should be combined and broadened
#21 leave out examples and should be put before 19 & 20
#25 should be reworded so participants know we mean all people and various disabilities
#28-32 many participants are unaware of whether they've made a request or not
#33 unclear what we are looking for - what do we want?
#34 - 37 should be one long list; making #35 and 37 part of the list. The list needs to standardized and kept at the end of the questionnaire because it is a different style than the other questions.

Evaluation of 504 Coordinator Questionnaire

As indicated above, much was learned from the coordinators. We got better SUNYwide estimates of the number of people with disabilities. We obtained corroboration of the picture of service provision given by respondents with disabilities. The main overall recommendation for the future here would be to interview

some of the coordinators in person to allow them to elaborate on answers and to suggest additional material which we should be asking them about.

Some minor changes are also in order. Taken together, questions 4 and 5 are confusing as to whether they refer to the campus as a whole or to members of to 08 bargaining unit. Questions 5D and 5E, asking about the accuracy of the information provided are essential in this area of difficult record keeping. Question 6 begins with an open-ended query about campus accessibility, but never gives people space to answer; it would be better to separate the open-ended introduction from the closed-ended specifics which follow. On question 6 and subsequent closed-ended questions, indicate clear 'don't know' and 'not applicable' options. As with the disability questionnaires, the specific service questions need better conceptualization.

Recommendations

The above pages make it clear that employees with disabilities have needs which are not being met under the present system. As the bargaining agent for these employees, the UUP and New York State have some responsibility in this area to ensure that employee rights are better met.

While there is responsibility here, we would like to commend the UUP Joint Labor Management Affirmative Action Committee for funding this pilot project. There is an information shortage in this area, and even this small scale project fills in some of the gap. We think that by continuing its interest, the UUP could demonstrate national leadership, pioneering a role for unions in this field. Any plan or fund which is agreed upon could not only benefit SUNY employees but could serve as a model for other areas as well.

Some of our recommendations involve funding; others have to do with publicizing and the provision of information. Several things should be said about this approach. We should first repeat what we have already said. People flinch at hiring someone with a disability because they immediately see the specter of large amounts of extra money, and they see this as a burden. From everything we have said thus far, we cannot too often stress that employees with disabilities are productive citizens who care about their work and do their share. Similarly, though some equipment and modifications are costly, many are not. Many accomodations are low cost, need to be done at one point in time only and are of a general benefit character. Many feed on each other so that great strides have already been made through the architectural

improvements of the 1970s. Finally, money is not the only answer, and this is a case where more is not necessarily better; how and for what the money is spent is crucial. This is an important thought in an age of scarcity and conflicting demands.

Funding Recommendations

The main reason for a UUP administered fund is the recruitment and retention of more people with disabilities. Since money can be spent in many ways, this primary goal needs to be emphasized. We recommend that a trial fund of $60,000 be set up and monitored over a period of the UUP contract, three years. The fund should be broad in the type of requests it should process because of all the variation in needs we have seen. It should exist to help individuals with disabilities meet particular job related needs as well as allowing for campuswide projects and for administrators or campuses to develop programs of benefit to employees with disabilities. Speed of processing requests needs to be considered in the cases where failure to provide accomodations makes the difference between getting and not getting the job.

We have recommended a $60,000 allocation. We think this should be supplemented by a system of matching funds from each campus as a campus draws on the union fund. Thus, all parties concerned are responsible for sharing cost outlays. The system should work as follows:

Recruitment

Each campus should be expected to make money for the purpose of hiring people with disabilities. When a person with a disability is initially hired, the cost of accomodations should be split between the campus (not the department) and the UUP. This will give departments more incentive to hire people than if they had to pay for accomodations from department funds.

Requests from Employees Already on the Job

Employees already hired may have reasonable requests for additional accomodations. For example, computer technology needs to be upgraded or people with progressive disabilities may have changing needs. We therefore recommend that funding for these types of requests should be split between department funds (not the campus recruiting fund) and the UUP.

Requests for Campuswide Projects

The fund should honor requests which would foster the long-run success of recruiting plans. Departments or campuses might want to initiate special recruiting or educational programs or to hold conferences or seminars for employees. These projects should be encourage and, as above, a matching fund system should be in place.

Other Issues Which Need to be Considered

1. The range of typical requests the fund should consider should be between $250 and $6,000. This would accomodate minor requests as well as major technological devices. These numbers are intended as rough guidelines so should not exclude the possibility of processing larger reasonable requests.

2. Any equipment purchased through this fund is the property of SUNY, not the employee.

3. The fund should not be used for major architectural accomodations, for which institutions are obligated to pay.

4. The percentage of funds matched by the NYS/UUP fund might be weighted differently if proposed project benefited more than one person.

5. Since we are recommending a trial fund, it will need to be monitored and re-evaluated. We recommend that the evaluation team consist of two or three members: one from the UUP, one from this project team, and possibly one from SUNY/ Central Administration.

Publicity and Recruiting Recommendations

Without appropriate publicity, this fund will not be effective. Employers need to be aware that they are being encouraged to hire persons with disabilities, and that there are specific sources of help by which they can do so. They should be aware of these issues before they mistakenly reject a job applicant.

The UUP should take numerous steps to publicize the fund. An additional $2,000 should be allocated and spent for this purpose. A brochure should be produced, publicizing the fund and outlining the benefits of hiring people with disabilities. An ongoing series of articles should appear in The Voice describing the

fund, the needs of people with disabilities and the projects that the fund supports. The UUP should publicly recognize people, departments and campuses who use the fund in an exemplary way.

Individual campuses should be encouraged to take the types of actions indicated above and to give public credit for outstanding performance. This includes articles in publications of individual campuses and of the SUNY central administration. The UUP should not be the sole responsible agent for publicity.

Another type of publicity is needed. It is clear that there aren't many employees with disabilities in the SUNY system. Those who are here are older, tend to have minor disabilities and, often, the onset of disability occurred later in life. Thus, we need to get more and younger people into the system. There are additional sources of qualified employees which could be tapped like advocacy organizations among the people with disabilities. For instance, the National Federation of the Blind runs a job opportunities program. Efforts to recruit qualified SUNY graduates with disabilities should be encouraged.

In this regard, a couple of our respondents alluded to a SUNYwide program in the late 1970s called Operation Access. We do not have all the details behind the workings of the program, but the thrust was that several SUNY campuses hired employees with disabilities as interns. Part of the job responsibilities of these people were increasing campuswide visibility of issues with disabilities, meeting with campus officials, assessing the state of accessibility on campus, etc. in addition to performing regular job duties. Some of the people initially hired in these ways stayed and have had long term careers. This program served several of the functions we have been advocating: recruitment, visibility, providing information and sensitizing nondisabled colleagues. Perhaps under the auspices of the UUP, an Operation Access for the 1990s should be implemented.

Other Recommendations

1. Strong commitment from New York State and UUP on disability issues. As we have seen, respondents often stated the need for official commitments from organizational heads. A strong top-down commitment from the UUP would help. A specific UUP representative for employees with disabilities, the hiring by UUP of an individual with a disability and articles in The Voice would be specific demonstrations of this commitment.

2. Provision of information. We have seen that there are many information gaps among our employees with disabilities. Their perceptions are that there are many sources of help for students but that the position of employees is more ambiguous. Information packets about 504 and technology could help. It would also be useful in the long run for the UUP to collect information about funding sources so that as requests come in other means of funding besides the UUP could be suggested. UUP sponsored (or jointly sponsored) SUNYwide conferences for administrators and for employees with disabilities would meet respondent needs for cross-campus networking and education of the non-disabled.

3. Equipment loan programs or central registry. A funding program would be made easier if there were central recordkeeping of equipment already in the system and purchased by the fund. Additionally, some arrangements might be made for equipment networking and loaning across campuses. Employees with disabilities are dispersed across SUNY, often few on a campus, as is equipment to meet their needs. Equipment loans on a trial basis might be useful.

4. Future study. This project was intended as a pilot with the view toward conducting a larger study in the future. We recommend, however, that effort should be put into monitoring a trial fund and to the informational concerns just discussed. We make this recommendation for a number of reasons. We need more employees with disabilities in the system; it is time for action in this regard. Second, we feel this pilot project has demonstrated sufficient need for action. A larger study would demonstrate more need, but we already have an indication that specific concerns are being expressed and are going unmet. Third, the variation in disability and in the accompanying needs of the people with disabilities is not a finding that will change as we interview more people. Interviewing a larger number might point up some ways this original sample was not typical, but the variation would still stand out as important.

Table Ia

Perceptions of service provision of UUP Individuals (Quest. #6) & 504 Coordinators (Quest. #34)

	SERVICE	RESPONDENT	MOST	SOME	NONE	# SS
1)	Parking for Disabled	504 Coordinators	0.95	0.05	0.00	22
		UUP Individuals	0.75	0.25	0.00	20
		Ratio=Coord/Indiv	1.27	0.20	0.00	----
2)	Wheelchair Accessible Elevators	504 Coordinators	0.50	0.50	0.00	22
		UUP Individuals	0.65	0.35	0.00	20
		Ratio=Coord/Indiv	0.77	1.43	0.00	----
3)	Wheelchair Accessible Telephones	504 Coordinators	0.36	0.55	0.09	22
		UUP Individuals	0.38	0.63	0.00	16
		Ratio=Coord/Indiv	0.95	0.87	0.00	----
4)	Handicapped Signage Entrance	504 Coordinators	0.33	0.24	0.43	21
		UUP Individuals	0.35	0.41	0.24	17
		Ratio=Coord/Indiv	0.94	0.59	1.79	----
5)	Telecom Payphones	504 Coordinators	0.00	0.09	0.91	22
		UUP Individuals	0.00	0.33	0.67	9
		Ratio=Coord/Indiv	0.00	0.27	1.36	----
6)	Curb-cuts	504 Coordinators	0.71	0.29	0.00	21
		UUP Individuals	0.68	0.32	0.00	19
		Ratio=Coord/Indiv	1.04	0.91	0.00	----
7)	Wheelchair Accessible Toilets	504 Coordinators	0.68	0.32	0.00	22
		UUP Individuals	0.58	0.42	0.00	19
		Ratio=Coord/Indiv	1.17	0.76	0.00	----
8)	Wheelchair Access Drink Fountains	504 Coordinators	0.48	0.43	0.09	21
		UUP Individuals	0.39	0.50	0.11	18
		Ratio=Coord/Indiv	1.23	0.86	0.82	----
9)	Access Rts /Ramps kept ice-free	504 Coordinators	0.64	0.36	0.00	22
		UUP Individuals	0.33	0.56	0.11	18
		Ratio=Coord/Indiv	1.94	0.64	0.00	----
10)	Audible Walk/lights Intersection	504 Coordinators	0.00	0.00	1.00	21
		UUP Individuals	0.00	0.17	0.83	12
		Ratio=Coord/Indiv	0.00	0.00	1.20	----
11)	Strobe Warn/Attent. Lights	504 Coordinators	0.00	0.30	0.70	20
		UUP Individuals	0.00	0.20	0.80	12
		Ratio=Coord/indiv	0.00	1.50	0.88	----

---- indicates not applicable.

* Based on 7 campuses for UUP individuals (question 6) and 22 campuses for coordinators (question 34).

Table Ib
(continued)

	SERVICE	RESPONDENT	YES	NO	# SS
12)	Taped campus map or directory.	504 Coordinators	0.10	0.90	21
		UUP Individuals	0.29	0.71	14
		Ratio=Coord/Indiv	0.34	1.27	----
13)	Tactile campus map	504 Coordinators	0.18	0.82	22
		UUP Individuals	0.15	0.85	13
		Ratio=Coord/Indiv	1.20	0.96	----
14)	Accessible on-campus transpor--tation	504 Coordinators	0.18	0.82	22
		UUP Individuals	0.59	0.29	17
		Ratio=Coord/Indiv	0.31	2.83	----
15)	Braille map	504 Coordinators	0.18	0.82	22
		UUP Individuals	0.23	0.77	13
		Ratio=Coord/Indiv	0.78	1.06	----
16)	Does your campus provide special orientation for employees with disabilities?**				
		504 Coordinators	0.29	0.71	21
		UUP Individuals	0.13	0.87	15
		Ratio=Coord/Indiv	2.23	0.82	----

* Based on 7 SUNY campuses for individuals in UUP bargaining unit, and based on 22 SUNY campuses for 504 coordinators.

** Refers to question number 7 for 504 coord. and 35 for UUP ind.

TABLE II

Perceptions of service by UUP individuals and 504 coordinators

	SERVICE	RESPONDENT	YES	NO	# SS
1)	Provide for special diet requirements	504 Coordinators	0.81	0.19	21
		UUP Individuals	0.64	0.36	11
		Ratio=Coord/UUP Ind	1.27	0.53	----
2)	Attendant services	504 Coordinators	0.32	0.68	22
		UUP Individuals	0.50	0.50	12
		Ratio	0.64	1.36	----
3)	Newsletter for people w/ disabilities	504 Coordinator	0.27	0.73	22
		UUP Individuals	0.21	0.79	14
		Ratio	1.29	0.92	----
4)	Guide to Accessible comm. resour.	504 Coordinators	0.41	0.59	22
		UUP Individuals	0.36	0.64	14
		Ratio	1.14	0.92	----
5)	Signers for public events	504 Coordinators	0.38	0.62	21
		UUP Individuals	0.54	0.46	13
		Ratio	0.70	1.35	----
6)	Interpreters	504 Coordinators	0.41	0.59	22
		UUP Individuals	0.54	0.46	13
		Ratio	0.76	1.28	----
7)	Notetakers	504 Coordinators	0.73	0.27	22
		UUP Individuals	0.75	0.25	12
		Ratio	0.97	1.08	----
8)	Cassette tapes of catalog, s'vce manual	504 Coordinators	0.09	0.91	21
		UUP Individuals	0.30	0.70	10
		Ratio	0.30	1.30	----
9)	Resvd parking for specific di dis. employee	504 Coordinators	0.64	0.36	22
		UUP Individuals	0.68	0.32	19
		Ratio	0.94	1.13	----
10)	Counseling for disabled employees	504 Coordinators	0.62	0.38	21
		UUP Individuals	0.29	0.71	14
		Ratio	2.14	0.54	----
11)	Loan programs For Tape recorders	504 Coordinatos	0.68	0.32	22
		UUP Individuals	0.54	0.46	11
		Ratio	1.26	0.70	----
12)	Loan programs for special purpose W.P.'s	504 Coordinatos	0.14	0.86	21
		UUP Individuals	0.27	0.73	11
		Ratio	0.52	1.18	----
13)	Telecom device with printer	504 Coordinators	0.23	0.77	21
		UUP Individuals	0.46	0.54	13
		Ratio	0.50	1.43	----

14)	Taped books	504 Coordinators	0.68	0.32	22
		UUP Individuals	0.33	0.67	12
		Ratio	2.06	0.48	----
15)	Braille books	504 Coordinators	0.14	0.86	22
		UUP Individuals	0.33	0.67	12
		Ratio	0.42	1.28	----
16)	Large print Material	504 Coordinators	0.55	0.45	22
		UUP Individuals	0.62	0.38	13
		Ratio	0.89	1.18	----
17)	Variable speed cass. recorders	504 Coordinators	0.77	0.23	22
		UUP Individuals	0.54	0.46	11
		Ratio	1.43	0.50	----
18)	Kurzweil reading machine	504 Coordinators	0.33	0.67	21
		UUP Individuals	0.54	0.46	13
		Ratio	0.61	1.46	----
19)	Microfiche enlarger	504 Coordinators	0.62	0.38	21
		UUP Individuals	0.50	0.50	12
		Ratio	1.24	0.76	----
20)	TV reading Enlarger	504 Coordinators	0.62	0.38	21
		UUP Individuals	0.54	0.46	11
		Ratio	1.15	0.83	----
21)	Enlarged v. display comp. terminals	504 Coordinators	0.43	0.57	21
		UUP Individuals	0.33	0.67	12
		Ratio	1.30	0.85	----
22)	Special or modified furniture	504 Coordinators	0.43	0.57	21
		UUP Individuals	0.33	0.67	9
		Ratio	1.30	0.85	----
23)	Adaptation to public access computers	504 Coordinators	0.47	0.53	19
		UUP Individuals	0.33	0.67	9
		Ratio	1.42	0.79	----
24)	Classes moved to improve access?	504 Coordinators	0.95	0.05	21
		UUP Individuals	0.45	0.55	22
		Ratio	2.11	0.09	----
25)	Spec. library service to people w/ disabilities	504 Coordinators	0.68	0.32	19
		UUP Individuals	0.46	0.54	13
		Ratio	1.48	0.59	----

* Based on 7 campuses for UUP indivividuals (questions 23, 36, and 37) and 22 campuses for coordinators (questions 8,9 and 12).

T A B L E III

DISTRIBUTION OF INDIVIDUALS WITH DISABILITIES ACROSS SUNY UNITS.**

SCHOOL*	1	2	3	4	5
Albany - Univ	20	55.0%	63.6%	16.0%	46.6%
Alfred - S.U.C	40	25.0%	100.0%	25.0%	57.5%
Brockport-S.U.C.	6	33.3%	50.0%	50.0%	0.0%
Brooklyn-Hlth Sci Ctr	27	63.0%	58.8%	37.0%	37.0%
Buffalo-Univ	145	49.0%	64.8%	68.3%	27.6%
Canton-Tech	4	50.0%	50.0%	50.0%	50.0%
Cobleskill-Agr. Tech.	7	71.4%	80.0%	80.0%	0.0%
Cortland-S.U.C	11	72.7%	87.5%	0.0%	91.0%
Delhi-Tech	N/A	N/A	N/A	N/A	N/A
Farmingdale-tech	20	75.0%	80.0%	20.0%	25.0%
Fredonia-S.U.C.	1	0.0%	0.0%	0.0%	0.0%
Geneseo-S.U.C.	4	N/A	N/A	25.0%	0.0%
Fort Schuyler-Maritime	11	45.5%	60.0%	N/A	N/A
Morrisville-Agr. Tech.	3	0.0%	0.0%	66.6%	0.0%
New Paltz-S.U.C.	5	100.0%	80.0%	80.0%	0.0%
Old Westbury-S.U.c.	8	12.5%	100.0%	50.0%	0.0%
Oneonta-S.U.C.	2	100.0%	100.0%	50.0%	0.0%
Oswego-S.U.C.	5	80.0%	100.0%	40.0%	0.0%
Plattsburgh-S.U.C.	N/A	N/A	N/A	0.0%	N/A
Potsdam-S.U.C.	13	61.5%	75.0%	0.0%	0.0%
Purchase-S.U.C.	2	100.0%	50.0%	100.0%	0.0%
Stony Brook- Univ	N/A	N/A	N/A	N/A	N/A
Number	334	168	168	334	334

Column (1) Number of individuals with disabilities employed by SUNY unit.

Column (2) Percentage of individuals with disabilities in UUP bargaining unit.

Column (3) Percentage in UUP who are teaching faculty.

Column (4) Percentage of SUNY individuals with disabilities who are mobility impaired.

Column (5) Percentage of SUNY individuals with disabilities who have disabilities other than visual, hearing, mobility or learning.

* Non responding schools are Binghamton, Empire State College, New York-College of Optometry, Syracuse- College of Environmental Science and Utica/Rome-College of Technology.

** See questions 4 and 5 of (504) Coordinators questionnaire.

N/A = No Answer.

T A B L E IV

SERVICES PROVIDED TO STUDENTS AND EMPLOYEES WITH DISABILITIES
(504 COORDINATORS ANSWERS).

SCHOOL	QUESTION NUMBER 6	7*	8	9*	10*	12*	Total
Albany -Univ.	8	1	20	1	1	1	32
Alfred-S.U.C.	7	0	15	1	1	1	25
Brockport-S.U.C.	2	0	12	0	1	1	16
Brooklyn- Hlth Sci Ctr.	8	0	3	0	0	1	12
Buffalo-Univ.	8	0	3	0	0	1	12
Canton-Tech.	3	0	7	1	0	1	12
Cobleskill-Agr. & Tech.	4	0	11	1	1	1	18
Cortland-S.U.C.	4	0	11	0	1	1	17
Delhi-Tech.	8	0	13	1	1	1	24
Farmingdale-Tech.	4	1	8	1	1	1	16
Fredonia-S.U.C.	8	0	12	0	0	1	21
Geneseo-S.U.C.	4	1	2	0	0	0	7
Ft. Schuyler-Maritime	8	0	3	0	1	1	13
Morrisville-Agr. & Tech	1	0	3	0	0	1	5
New Paltz-S.U.C.	9	1	15	1	1	1	28
Old Westbury-S.U.C.	2	0	8	1	1	1	13
Oneonta-S.U.C.	5	0	9	1	1	1	17
Oswego-S.U.C.	4	0	8	1	0	1	14
Plattsburgh-S.U.C.	3	0	16	1	1	1	22
Potsdam-S.U.C.	3	1	4	0	0	1	9
Purchase-S.U.C.	10	0	15	0	1	0	26
Stony Brook-Univ.	5	0	17	1	1	1	25

Question (6) How physically accessible is your campus?
number services campus provides (max=15, see coord. survey)
Question (7) Does your campus provide special orientation for employees with disabilities?
Question (8) Does your campus provide disabled students and employees with any of the following? Number of services campus provides (max = 23 - see coordinator survey)
Question (9) Describe any special campus library services to students and staff with disabilities.
Question (10) List any other equipment or services for students and staff with disabilities.
Question (12) To your knowledge, are classes ever moved to improve access?
Total column (Maximum number = 42).

* For questions 7, 9, 10, an12 (1

T A B L E V

COST ESTIMATES FOR SELECTED EQUIPMENT/MODIFICATIONS*

COORDINATORS' COST ESTIMATES FOR EQUIPMENT/MODIFICATIONS**

EQUIPMENT	COST ESTIMATES
"Talking" computers	$ 6,000 - $ 8,000
	3,000
	10,000
	1,800
Phonic ear	1,300
Four-track recorder/player	190
Vista	1,700
Visualtek	3,500
Lamps (enlargers)	200
Kurzweil reading machine	35,000
	11,000
Computer adaptation with voice, large print and braille capabilities	15,000
Tutors, notetakers and interpreters /per year	12,000

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* This list is intended to be illustrative, rather than authoritative or comprehensive.

** Question 13 of the 504 Coordinators questionnaire was "Could you give an estimate of costs for any of the items mentioned in questions 8-11?"

T A B L E V
continued

CENTER FOR COMPUTING AND DISABILITY ESTIMATES FOR SELECTED EQUIPMENT/SOFTWARE *

EQUIPMENT	COST ESTIMATES
E Z Keys (communication program)	$ 1,195
Votrax Personal Speech System	449
WSKE with voice (Words + Software Keyboard Emulator)	1,195
SmoothTalker (for voice output)	595
Adaptive Firmware Card for the Apple IIGS	450
Stenoscript Shorthand edition of PRD	160
DECtalk Speech Synthesizer	1,600

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* Estimates provided by the Center for Computing and Disability, the University at Albany, State University of New York, August, 1989. In many cases, individuals require a combination of devices, special software and the usual hardware and software required by all computer users.

APPENDIX A

Disability Needs Assessment Pilot Project
Members of the UUP(08) Bargaining Unit
May, 1989

I. GENERAL EMPLOYMENT

1. In which SUNY unit are you employed?

2. In which school/department do you work?

3. What is your PR grade or academic rank?

4. What is your campus job title?

5. How many years have you been in your present job title?

6. Please indicate the type of appointment that you have:
   Permanent appointment
   Term appointment
   Temporary appointment
   Part-time appointment
   Other (please specify)

7. How many years have you been employed at this SUNY unit?

8. What is your age?

9. What is your sex?

10. What is your educational level (highest degree attained or years of schooling completed)?

11. Have you ever had your job terminated (at SUNY or elsewhere) or lost an employment or promotional opportunity because of lack of adaptive facilities, equipment or services? Yes No
    If yes, please describe

II. DISABILITY AND WORK

The Rehabilitation Act of 1973 defines an individual with a disability as:

1. Any person who has an impairment which substantially limits one or more of such person's major life activities, such as hearing, speaking, seeing, performing manual tasks, or walking. Handicaps may be either physical or mental, and include diseases such as cancer, diabetes, and epilepsy.

2. Any person who has a record of being handicapped; for example, someone with a history of heart disease or alcoholism.

3. Any person who is regarded as having a handicap; for example, someone with a limp or disfiguring scar.

12. Please describe your disability

13. What is the nature of your work? Please include any disability-related activities involved in your job.

14. Does your disability affect your work? If so, how?

15. If your disability affects your work, what alternative means or techniques, such as readers or computers, do you use?

16. To your knowledge, when you were hired to what extent was your disability discussed? What was the nature of the discussion?

17. Was information provided to you about the availability of resources to fund modification, equipment or special services?

18. What are the costs, as you understand them, for each piece of equipment you use or modification or special service provided for you?

What was done?	Who bore cost?	What was cost?	Annual, or one-time?	If one-time, approx. date

Use back of sheet if additional space is needed.

19. Are you aware of any other equipment or modifications that you don't have, which would aid you in your work? Please describe and include costs, if possible.

20. What else might be done to assist you in attaining professional success?

21. Are there non-equipment/non-material kinds of assistance which might help you? For example, do you need an attendant to be able to attend conferences? Do you need increased leave-time or other time adjustments?

22. The following list represents needs and concerns identified by faculty and professionals in similar surveys conducted at other institutions. Would you please indicate how important each of these needs are for you. Please explain in detail any that you've identified as very important.

	Very Imp.	Some-what Imp.	Not Very Imp.	Unimp.	Very unimp.	Comments
a. more time for research & publishing						
b. more funding for research						
c. support group or network						
d. opportunities for career development						
e. better office space						
f. advanced degree						
g. others (please specify)						

(use back of sheet if necessary)

23. Do any of your job responsibilities require rescheduling rooms or special services? e.g., class moved to improve access?

24. What equipment, modifications or special services might others with similar disabilities use? i.e., if other funds were available could we recruit more people with disabilities?

25. In general, how might funding be used to improve the quality of working life of people with disabilities at your institution?

26. Is there anything else you would like to mention regarding disability and work?

27. Is there anything else you would like to tell us about yourself?

III. THE REHABILITATION ACT OF 1973

28. Are you familiar with Sections 503 and 504 of the Rehabilitation Act of 1973 and the concept of "reasonable accommodations"?
Yes ___ No ___

29. Are you aware that the Rehabilitation Act of 1973 requires employers to provide "reasonable accommodation to the handicaps of applicants and employees unless the accommodation would cause the employer undue hardship"? Yes ___ No ___

29A. If no, please go to question 30.

29B. If so, how did you learn about the Rehabilitation Act of 1973?

30. Did the college/university provide you with information about the Rehabilitation Act of 1973? Yes ___ No ___
If yes, what type of information was provided?

31A. Have you ever made a request under the Rehabilitation Act of 1973?

31B. How long did it take to get it processed?

31C. How smoothly did the process go?

32. Are there other issues regarding the Rehabilitation Act of 1973 that you would like to mention?

IV. CAMPUS FACILITIES

33. To what extent do you use campus provided equipment, modifications or special services?

To a great degree ____ Very little ____
Some degree ____ Not at all ____

If you use then very little or not at all, please explain why

34. How physically accessible is your campus? Please briefly describe it in terms of accessibility for the disabled.

Does your campus have the following?

	In most cases	In some cases	Not at all	Not Applicable	Comments
Parking for disabled					
Wheelchair accessible elevators					
Wheelchair accessible telephones					
Handicapped signage at bldg. entrances					
Telecommunications devices for hearing-impaired at pay telephones					
Curb cuts					

	In most cases	In some cases	Not at all	Not Applicable	Comments
Wheelchair accessible toilet facilities					
Wheelchair accessible drinking fountains					
Access routes/ramps kept ice-free and open					
Audible walk/light system at campus intersections					
Strobe warning / attention lights					

Taped campus map or directory	Yes ___	No ___
Tactile campus map	Yes ___	No ___
Accessible on-campus transportation	Yes ___	No ___
Braille campus map or directory	Yes ___	No ___

35. Does your campus provide special orientation for employees with disabilities? Yes ___ No ___. If yes, please briefly describe.

36. Does your campus provide disabled students and employees with any of the following:

Provision for special dietary requirements	y__n__
Attendant services	y__n__
Newsletter for people with disabilities	y__n__
Guide to accessible community resources	y__n__
Signers for public events	y__n__
Interpreters	y__n__
Notetakers	y__n__
Cassette tapes of campus catalog/service manuals	y__n__
Reserved parking for specific disabled employees	y__n__
Personal counseling for disabled employees	y__n__
Loan programs for tape recorders	y__n__
Loan programs for special purpose word processors (e.g., voice-activated, braille keys, etc.)	y__n__
Telecommunications device with printer for the hearing-impaired (TDD or TDY)	y__n__
Taped books	y__n__
Braille books	y__n__
Large print materials	y__n__
Variable speed cassette recorders	y__n__
Kurzweil reading machine	y__n__
Microfiche enlarger	y__n__
TV reading enlarger	y__n__

Enlarged video display computer terminals y__n__
Special or modified furniture y__n__
Adaption to public access computers y__n__
Other, please specify

37. Please describe any special campus library services to students and staff with disabilities

38. Would you comment on the effectiveness of these services, equipment and modifications

39. Do you have any other comments or information that will help us better understand the needs of employees and students with disabilities?

Thank you for your participation.

Sara D. Knapp, Project Director
University Library, The University at Albany/SUNY
1400 Washington Ave., Albany, NY 12222
(518) 444-3539

APPENDIX B

Disability Needs Assessment Pilot Project
504 Coordinators
May, 1989

I. GENERAL

1. What is the name of your SUNY unit?

2. Please provide the name, address and phone number of your SUNY campus' Section 504 Coordinator and Affirmative Action Officer (if more than one please indicate).

Section 504 Coordinator
Name:
Title
Address:

Phone:

Affirmative Action Officer
Name:
Title:
Address:

Phone:

3. Who is completing this questionnaire?

Name:
Title:
Address:

Phone:

II. DISABLED POPULATION

The Rehabilitation Act of 1973 defines a handicapped individual as:

1. Any person who has an impairment which substantially limits one or more of such person's major life activities, such as hearing, speaking, seeing, performing manual tasks, or walking. Handicaps may be either physical or mental, and include diseases such as cancer, diabetes, and epilepsy.

2. Any person who has a record of being handicapped; for example, someone with a history of heart disease or alcoholism.

3. Any person who is regarded as having a handicap; for example someone with a limp or disfiguring scar.

4. Using this definition, how many handicapped individuals are employed by your SUNY unit?

5A. Of those handicapped individuals, how many are represented by the UUP (08) bargaining unit?

5B. How many of these are:

Teaching Faculty
Librarians
Non-teaching Professionals

5C. What number of people are found in the following categories of disabilities?

Visual
Hearing
Mobility
Learning
Other

5D. What method did you use to obtain the information?

5E. How accurate do you think your estimates above (questions 5A-5C) are?

Very Uncertain Fairly Certain Totally Accurate

III. CAMPUS SERVICES

6. How physically accessible is your campus? Please briefly indicate the degree of accessibility for people with disabilities and add any comments you wish.

Does your campus have the following?

	In most cases	In some cases	Not at all	Not Applicable	Comments
Parking for disabled					
Wheelchair accessible elevators					
Wheelchair accessible telephones					
Handicapped signage at bldg. entrances					

	In most cases	In some cases	Not at all	Not applicable	Comments
Telecommunications devices for hearing-impaired - pay phones					
Curb cuts					
Wheelchair accessible toilet facilities					
Wheelchair accessible drinking fountains					
Access routes/ramps kept ice-free and open					
Audible walk/light system at campus intersections					
Strobe warning / attention lights					

Taped campus map or directory	Yes	No
Tactile campus map	Yes	No
Accessible on-campus transportation	Yes	No
Braille campus map or directory	Yes	No

7. Does your campus provide special orientation for employees with disabilities? If yes, please briefly describe

8. Does your campus provide disabled students and employees with any of the following:

Provision for special dietary requirements	y__n__
Attendant services	y__n__
Newsletter for people with disabilities	y__n__
Guide to accessible community resources	y__n__
Signers for public events	y__n__
Interpreters	y__n__
Notetakers	y__n__
Cassette tapes of campus catalog/service manuals	y__n__
Reserved parking for specific disabled employees	y__n__
Personal counseling for disabled employees	y__n__
Loan programs for tape recorders	y__n__
Loan programs for special purpose word processors (e.g., voice-activated, braille keys, etc.)	y__n__
Telecommunications device with printer hearing-impaired (TDD or TDY)	y__n__
Taped books	y__n__
Braille books	y__n__
Large print materials	y__n__
Variable speed cassette recorders	y__n__
Kurzweil reading machine	y__n__
Microfiche enlarger	y__n__

TV reading enlarger	y__n__
Enlarged video display computer terminals	y__n__
Special or modified furniture	y__n__
Adaption to public access computers	y__n__
Other, please specify	

9. Please describe any special campus library services to students and staff with disabilities

10. Please list any other equipment or services for students and staff with disabilities provided by your campus

IV. ACCOMMODATIONS

11. What types of accommodations have been made by your institution for people with disabilities, e.g., purchase of special equipment, modifications or services?

12. To your knowledge, are classes ever moved to improve access?
yes no

13. Could you give an estimate of costs for any of the items mentioned in questions 8 - 11?

14. Would you discuss the usual process involved in hiring a disabled person at your campus?

15. Are you aware of any instances where disabled people have been denied employment or promotions or denied service because of a lack of resources to provide the necessary reasonable accommodations? Yes No If yes, please describe

16. In your view, on your campus, what are the remaining barriers to the employment of people with disabilities?

17. If a fund to provide for special equipment, modifications or services were established by the Joint Labor Management Committees, what suggestions or comments do you have about the administration of such a fund?

18. How could such a fund best be used on your campus?

19. Any additional comments?

Thank you for your participation.

Please return this to: Sara D. Knapp, Project Director
University Library
The University at Albany / SUNY
1400 Washington Ave, Albany NY 12222
(518) 442-3539

APPENDIX C

Disability Needs Assessment Pilot Project
Members of the UUP(08) Bargaining Unit
May, 1989

Summary of Closed-Ended Questions

5. How many years have you been in your present job title? Mean = 10 yrs
Median = 15 yrs

6. Please indicate the type of appointment that you have:

Permanent appointment	12
Term appointment	6
Temporary appointment	3
Part-time appointment	1
Other (please specify	0

7. How many years have you been employed at this SUNY unit? Mean = 16 yrs
Median = 15 yrs

8. What is your age? Mean = 57, Median = 53.5

9. What is your sex? 8 male, 14 female

10. What is your educational level (highest degree attained or years of schooling completed)? college - 1; college graduate - 3; masters - 6; ph.d - 12

11. Have you ever had your job terminated (at SUNY or elsewhere) or lost an employment or promotional opportunity because of lack of adaptive facilities, equipment or services? Yes 2 No 20

14. Does your disability affect your work? Yes - 13; No - 8

17. Was information provided to you about the availability of resources to fund modification, equipment or special services? Yes - 3; No - 13; No answer - 6

22. The following list represents needs and concerns identified by faculty and professionals in similar surveys conducted at other institutions. Would you please indicate how important each of these needs are for you. Please explain in detail any that you've identified as very important.

	Very Imp.	Some-what Imp.	Not Very Imp.	Unimp.	Very unimp.	Comments (no answer, not applic)
a. more time for research & publishing	[2]	[4]	[4]	[3]	[2]	___7___
b. more funding for research	[4]	[4]	[3]	[3]	[1]	___7___
c. support group or network	[2]	[5]	[3]	[3]	[3]	___6___
d. opportunities for career development	[6]	[5]	[0]	[2]	[2]	___7___
e. better office space	[2]	[3]	[4]	[4]	[2]	___7___
f. advanced degree	[2]	[1]	[0]	[6]	[4]	___9___
g. others (please specify)_____						
Totals	18	22	14	21	14	43

23. Do any of your job responsibilities require rescheduling rooms or special services? e.g., class moved to improve access? _____
Yes - 7; No - 13; N/A - 2

28. Are you familiar with Sections 503 and 504 of the Rehabilitation Act of 1973 and the concept of "reasonable accommodations"?
Yes - 12; No - 8; somewhat - 1; no answer -1

29. Are you aware that the Rehabilitation Act of 1973 requires employers to provide "reasonable accommodation to the handicaps of applicants and employees unless the accommodation would cause the employer undue hardship"? Yes - 18; No - 3; N/A -1

29A. If no, please go to question 30.

30. Did the college/university provide you with information about the Rehabilitation Act of 1973? Yes - 9; No - 10; N/A - 3

31A. Have you ever made a request under the Rehabilitation Act of 1973?
Yes - 2; No - 18; Not sure - 1; N/A - 1

33. To what extent do you use campus provided equipment, modifications or special services?

To a great degree	__1_	Very little	__5_
Some degree	_11_	Not at all	__4_

34. How physically accessible is your campus? Please briefly describe it in terms of accessibility for the disabled.

Does your campus have the following?

	In most cases	In some cases	Not at all	Not Applicable	Comments (don't know -no answer)
Parking for disabled	[15]	[5]	[0]	[0]	__2____
Wheelchair accessible elevators	[13]	[7]	[0]	[0]	__2____
Wheelchair accessible telephones	[6]	[10]	[0]	[0]	__6____
Handicapped signage at bldg. entrances	[6]	[7]	[4]	[1]	__4____
Telecommunications devices for hearing-impaired at pay telephones	[0]	[3]	[6]	[3]	_10____
Curb cuts	[13]	[6]	[0]	[1]	__2____
Wheelchair accessible toilet facilities	[11]	[8]	[0]	[0]	__3____
Wheelchair accessible drinking fountains	[7]	[9]	[2]	[0]	__4____
Access routes/ramps kept ice-free and open	[5]	[10]	[2]	[0]	__4____
Audible walk/light system at campus intersections	[0]	[2]	[10]	[0]	_10____
Strobe warning / attention lights	[0]	[2]	[8]	[1]	_11____
Totals	77	69	32	6	58

			N/A	No Answer
Taped campus map or directory	Yes __4	No _10	0	8
Tactile campus map	Yes __2	No _11	0	9
Accessible on-campus transportation	Yes _12	No __5	1	4
Braille campus map or directory	Yes __3	No _10	0	9
Totals	21	36	1	30

35. Does your campus provide special orientation for employees with disabilities? Yes - 2 ; No - 13; Don't know -6; N/A - 1.

36. Does your campus provide disabled students and employees with any of the following:

			Don't know or N/A:
Provision for special dietary requirements	y__7	n__4	11
Attendant services	y__6	n__6	10
Newsletter for people with disabilities	y__3	n_11	8
Guide to accessible community resources	y__5	n__9	8
Signers for public events	y__7	n__6	9
Interpreters	y__7	n__6	9
Notetakers	y__9	n__3	10
Cassette tapes of campus catalog/service manuals	y__3	n__7	12
Reserved parking for specific disabled employees	y_13	n__3	6
Personal counseling for disabled employees	y__4	n_10	8
Loan programs for tape recorders	y__6	n__5	11
Loan programs for special purpose word processors (e.g., voice-activated, braille keys, etc.)	y__3	n__8	11
Telecommunications device with printer for the hearing-impaired (TDD or TDY)	y__6	n__7	9
Taped books	y__4	n__8	10
Braille books	y__4	n__8	10
Large print materials	y__8	n__5	9
Variable speed cassette recorders	y__6	n__5	11
Kurzweil reading machine	y__7	n__6	9
Microfiche enlarger	y__6	n__6	10
TV reading enlarger	y__6	n__5	11
Enlarged video display computer terminals	y__4	n__8	10
Special or modified furniture	y__3	n__6	13
Adaption to public access computers	y__3	n__6	13
Totals	130	148	228

37. Please describe any special campus library services to students and staff with disabilities Yes - 10; No - 5; No answer or N/A - 7.

38. Would you comment on the effectiveness of these services, equipment and modifications Effective - 4; Somewhat effective - 2; Not very effective - 2: No answer - 14.

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